

Orchard Dale Water District



Orchard Dale
WATER DISTRICT

2010 Urban Water Management Plan Final Report

June 28, 2011

Prepared by



GENERAL CIVIL, MUNICIPAL, WATER AND WASTEWATER ENGINEERING
PLANNING, CONSTRUCTION MANAGEMENT AND SURVEYING

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Orchard Dale Water District

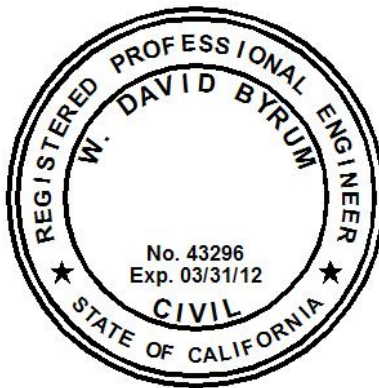
2010 URBAN WATER

MANAGEMENT PLAN



Orchard Dale Water District 2010 Urban Water Management Plan

June 2011



Under the Supervision of:

W. David Byrum, P.E.

43296
R.C.E.

Orchard Dale Water District 2010 Urban Water Management Plan

June 2011

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TABLE OF CONTENTS

§1 INTRODUCTION	1
§1.1 WATER CODE COMPLIANCE	1
§1.2 AGENCIES COORDINATION	2
§1.3 IMPORTED WATER FROM CENTRAL BASIN MUNICIPAL WATER DISTRICT	2
§1.4 GROUNDWATER FROM CENTRAL BASIN	4
§1.5 RECYCLED WATER	6
§1.6 SERVICE AREA DESCRIPTION AND FIVE YEAR DEVELOPMENT PLAN	7
§1.6.1 ODWD Service Area and Location	7
§1.6.2 Climate	7
§1.6.3 ODWD Water Supply History	7
§1.6.4 Population and Growth	8
§1.7 PAST DROUGHT, WATER DEMAND AND CONSERVATION INFORMATION	9
§2 WATER SUPPLY	12
§2.1 HISTORIC WATER SUPPLY	12
§2.2 PROJECTED WATER SUPPLY	13
§2.3 WATER FACILITIES	14
§2.4 WATER QUALITY	15
§3 WATER DEMAND	17
§3.1 HISTORIC AND CURRENT WATER DEMAND	17
§3.2 APPLICATION OF THE CALIFORNIA WATER CONSERVATION ACT	17
§3.2.1 Baseline Per Capita Water Use	18
§3.2.2 Adoption of Method 3	18
§3.2.2 Verification of Minimum Water Reduction Requirement	18
§3.2.3 Summary of Water Use Baseline and Targets	19
§3.3 PROJECTED WATER DEMAND	19
§3.3.1 Water Demand in a Normal Dry Year	20
§3.3.2 Water Demand in a Single Dry Year	20
§3.3.3 Water Demand in Multiple Dry-Year	20
§4 RELIABILITY PLANNING	22
§4.1 MWD WATER SUPPLY RELIABILITY	22
§4.2 CBMWD WATER SUPPLY RELIABILITY	23
§4.3 ODWD WATER SUPPLY RELIABILITY	23
§4.4 WATER TRANSFER AND EXCHANGE OPPORTUNITIES	23
§4.5 PLANNED WATER SUPPLY PROJECTS AND PROGRAMS	24
§4.6 WATER QUALITY IMPACTS ON RELIABILITY	24
§5 WATER CONSERVATION	25
§5.1 OVERVIEW	25
§5.2 OVERALL MANAGEMENT	25
§5.3 DEMAND MANAGEMENT MEASURES (DMMS)	25
§5.3.1 DMM No. 1 --- Interior and Exterior Water Audits	25
§5.3.2 DMM No. 2 --- Plumbing Retrofit	25
§5.3.3 DMM No. 3 --- System Water Audits, Leak Detection and Repair	27
§5.3.4 DMM No. 4 --- Metering with Commodity Rates	27
§5.3.5 DMM No. 5 --- Large Landscape Conservation Programs and Incentives	27
§5.3.6 DMM No. 6 --- High Efficiency Washing Machine Rebate Programs	27
§5.3.7 DMM No. 7 --- Public Information	27
§5.3.8 DMM No. 8 --- School Education	28
§5.3.9 DMM No. 9 --- Commercial and Industrial Water Conservation	29

§5.3.10 DMM No. 10 --- Wholesale Agency Assistance Programs.....	29
§5.3.11 DMM No. 11 --- Conservation Pricing, Water Service and Sewer Service	29
§5.3.12 DMM No. 12 --- Water Conservation Coordinator	29
§5.3.13 DMM No. 13 --- Water Waste Prohibition.....	29
§5.3.14 DMM No. 14 --- Residential Ultra-low-flush Toilet Replacement Programs	30
§5.4 FUNDING.....	30
§6 WATER SHORTAGE CONTINGENCY PLAN.....	31
§6 WATER SHORTAGE CONTINGENCY PLAN.....	31
§6.1 WATER SHORTAGE EMERGENCY RESPONSE	31
§6.2 REVENUE AND EXPENDITURE IMPACTS.....	31
§6.3 REDUCTION MEASURING MECHANISM	31
§7 WATER RECYCLING	33
§7.1 RECYCLED WATER APPLICATION	33
§7.2 PLAN FOR OPTIMIZING THE USE OF RECYCLED WATER	33

LIST OF TABLES

TABLE 1 – GROWTH IN SERVICE CONNECTIONS	8
TABLE 2 – 2010 POPULATION DENSITY CALCULATION	9
TABLE 3 – POPULATION PROJECTION	9
TABLE 4 – HISTORICAL SYSTEM LOSSES	10
TABLE 5 – ODWD HISTORIC WATER SUPPLIES 2006 - 2010	13
TABLE 6 – ODWD CURRENT AND PROJECTED WATER SUPPLIES 2010 – 2030 (IN AFY)	14
TABLE 7 – ODWD WATER SUPPLY FACILITIES.....	15
TABLE 8 – ODWD HISTORIC WATER DEMAND.....	17
TABLE 9 – BASELINE PER CAPITA WATER USE	18
TABLE 10 – MINIMUM WATER USE REDUCTION VERIFICATION	18
TABLE 11 – SUMMARY OF WATER USE BASELINE AND TARGETS	19
TABLE 12 – ODWD CURRENT AND PROJECTED WATER DEMAND 2010-2030	19
TABLE 13 – PROJECTED NORMAL YEAR SUPPLY AND DEMAND COMPARISON.....	20
TABLE 14 – PROJECTED SINGLE DRY YEAR SUPPLY AND DEMAND COMPARISON.....	20
TABLE 15 – IMPORTED WATER SUPPLY VARIATION UNDER MULTIPLE DRY YEAR CONDITIONS	21
TABLE 16 – MULTIPLE DRY YEAR SUPPLY AND DEMAND COMPARISON.....	21

LIST OF APPENDICES

Appendix A – Urban Water Management Planning Act
Appendix B – Central Basin Judgment
Appendix C – Central Basin Amendment Decision
Appendix D – CBMWD Groundwater Management Plan Draft
Appendix E – ODWD Resolution 08-12-14
Appendix F – Support for Water Education Foundations
Appendix G – ACWA Water Management Certification
Appendix H – Purchase Agreement for Imported Water
Appendix I – ODWD Annual Water Quality Report
Appendix J – CBMWD Imported Water Supply Allocation Policy
Appendix K – ODWD Rules and Regulations Governing Water Service and Water Consumers
Appendix L – Notice of Public Hearing
Appendix M – Resolution of Adoption
Appendix N – CBMWD 2010 Urban Water Management Plan

Orchard Dale Water District 2010 Urban Water Management Plan Contact Sheet

Date plan submitted to the Department of Water Resources:

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Contact Person: W. David Byrum, P.E., Principal Engineer

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The Water supplier is a: County Water District

The Water supplier is a: Retailer

Utility services provided by the water supplier include: domestic potable water

Is This Agency a Bureau of Reclamation Contractor? No

Is This Agency a State Water Project Contractor? No

§1 Introduction

§1.1 Water Code Compliance

Orchard Dale Water District (ODWD) was established in 1954 pursuant to the County Water District Act (Water Code §30000 et seq.). The District's sphere of influence is coterminous with its boundaries. The majority of the District's boundaries lie within the sphere of influence of the County of Los Angeles.

ODWD supplies approximately 4,200 metered connections with about 2,360 acre-feet of water per year. According to California Water Code Section 10621 (a) (see Appendix A), the District is required to update its Urban Water Management Plan (UWMP) every five years and to file it with the California Department of Water Resources (DWR), describing and evaluating practical and projected water uses, reclamation, and conservation activities using a 20 year horizon.

ODWD is a member agency of Central Basin Municipal Water District (CBMWD). CBMWD is a member agency of Metropolitan Water District (MWD), from which CBMWD imports about 24% of all water distributed within its service area. CBMWD supplies mixed water resources, including imported water and recycled water, within its service area. ODWD participates in water conservation activities, and supports the California Water Awareness Campaign and the AWWA Research Foundation. ODWD is a member of Water Education Foundation.

This Plan has been prepared in accordance with the guidelines and format established by DWR and incorporates by reference the CBMWD 2010 UWMP (see Appendix N). As requested by DWR, the finalized ODWD 2010 Urban Water Management Plan was approved and adopted by ODWD Board of Directors June 28, 2011 (see Appendix M) and will be submitted to DWR by July 27, 2011.

For over 20 years, ODWD has encouraged community participation in its urban water management planning efforts since the first plan was developed in 1985. Public meetings were held on all previous plans, and will be held on the 2010 plan. Public interest groups are encouraged to participate in the development of the plan. Legal public notice for the meeting was published in local newspaper (see Appendix L), and copies of the adopted plan will be available to the public at the District Office for comments.

§1.2 Agencies Coordination

As a water retailer, ODWD has a connection to supply imported water provided by CBMWD and supplies groundwater from the Central Basin. Development of this Plan was headed by Thomas L. Coleman, the General Manager of ODWD. The other contact agencies include CBMWD and DWR.

ODWD participates in the recommendations and goals of the CBMWD and MWD Urban Water Management Plans. The goals include the aggressive development of local water resources as well as optimum water application.

ODWD does not only coordinate with local water purveyors, but also coordinates public involvement in water service.

§1.3 Imported Water from Central Basin Municipal Water District

CBMWD was established in 1952 by a vote of the people to help mitigate the over pumping of groundwater resources. In 1954, CBMWD became a member agency of MWD, an agency which provides the region with imported water. As a public agency that purchases imported water from MWD, CBMWD wholesales the imported MWD water to twenty-four cities, municipal water companies, investor-owned utilities and private companies within 227 square miles in southeast Los Angeles County. CBMWD consists of five divisions (ODWD is situated within Division II). Today, supply in the Central Basin relies on 68% groundwater, 24% imported water and 8% recycled water. By 2030, the projected water resource mix in the Central Basin is expected to remain approximately the same.

CBMWD has taken important steps over the past decades to reduce the water supply vulnerability to extended drought or other potential threats including investment in recycled water to replace imported water for non-potable uses and the implementation of conservation devices and programs. CBMWD will continue to evaluate opportunities to increase its water supply reliability within its service area, including not only the steps that have been taken but also new programs such as groundwater conjunctive use, brackish water recovery, and intensive education. Under the multiple dry-year scenario, it is projected that CBMWD will be able to meet customers' demand in the next twenty-five years by continuing to implement water conservation, recycling, and conjunctive use programs.

CBMWD is a member agency of MWD. MWD was formed in 1929 by an act of legislation by the State of California. Originally, MWD consisted of thirteen cities in Los Angeles County and Orange County and was formed for the purpose of importing supplemental water for domestic and irrigation needs in the area. Since its formation, MWD has expanded to include twenty-seven member cities, agencies and water authorities in six counties on the coastal plain of Southern California. The six counties within the MWD service area include Ventura County, Los Angeles County, San Bernardino County, Riverside County, Orange County and San Diego County.

MWD supplies treated domestic and untreated irrigation water to over 18 million people in Southern California. MWD's water supply comes from the State Water Project (SWP) via the California Aqueduct and from the Colorado River via the Colorado River Aqueduct. Per the 2005 MWD Urban Water Management Plan (UWMP)¹, the entitlements to these sources are described below.

MWD's entitlement to SWP water is based on a contract with the California Department of Water Resources (DWR) called the *1960 Contract between the State of California and the Metropolitan Water District of Southern California for a Water Supply*. This contract, initially executed in 1960 and amended numerous times since, is the basis for SWP deliveries to MWD. It requires DWR to make reasonable efforts to secure water supplies for MWD and its other contractors. The contract expires in 2035. At that time, MWD has the option to renew the contract under the same basic conditions. The contract entitles MWD to use up to 48% of the quantity of SWP water delivered annually.

Estimates of SWP deliveries are based upon operational simulations with DWR's CalSim II model using an extended record of runoff patterns. The CalSim II model predicts water reliability for a 20-year horizon. CalSim modeling data from 2007 show that annual SWP Table A² deliveries from the Delta average from 66 to 69% of the maximum Table A amount through 2027. Under future conditions (2027) annual SWP Table A deliveries from the Delta are expected to average from 66 to 69 percent of the maximum Table A amount. This range of average SWP water delivery reliability is the result of two CalSim II simulations: one focusing on the protection of the delta smelt, and the second considering the impact of flow constraints and climate change. Potential deliveries under current conditions assume current methods of conveyance across the Delta and the interim operating rules defined by the recent court order to protect delta smelt.

MWD's entitlement to Colorado River water is based on a series of agreements and compacts which govern the distribution and management of Colorado River water. The following documents specifically determine MWD's dependable supplies:

- *1931 Seven Party Agreement.* The 1931 Seven Party Agreement recommended California's Colorado River use priorities and has no termination date. California's basic annual apportionment is 4.4 million acre-feet. The Palo Verde Irrigation District, the Yuma Project, the Imperial Irrigation District, the Coachella Valley Water District, and MWD are the entities that hold the priorities included in the contracts that the United States Department of the Interior executed with the California agencies in the 1930s for water from Lake Mead. MWD has the fourth priority to California's basic apportionment of Colorado River water and utilizes this water – 550,000 acre-feet per year – every year. In addition, MWD has access to additional Colorado River water – up to 662,000 acre-feet per year – through its fifth priority in the California apportionment.

¹ Metropolitan Water District of Southern California. 2005 Regional Urban Water Management Plan.

² The maximum amount of SWP water made available to a Member Agency in any one year is specified in *Table A* and designated as the Agencies Maximum Annual Entitlement.

- *MWD's Basic Contracts.* MWD's 1930, 1931, and 1946 basic contracts with the United States Secretary of the Interior permit the delivery of 1.212 million acre-feet per year when sufficient water is available. MWD's 1987 surplus flow contract with the United States Bureau of Reclamation permits the delivery of water to fill the remainder of the Colorado River Aqueduct when water is available.
- *1964 Court Decree.* The 1964 United States Supreme Court Decree confirmed the Arizona, California, and Nevada basic apportionments of 2.8 million acre-feet per year, 4.4 million acre-feet per year and 0.3 million acre-feet per year, respectively. The Decree also permits the United States Secretary of the Interior to make water available that is unused by one of the states for use in the other two states. In addition, it permits the Secretary of the Interior to make surplus water available.
- *2003 Quantification Settlement Agreement (QSA)* and several other related agreements were executed in October 2003. The QSA quantifies the use of water under the third priority of the Seven Party Agreement. Although this agreement does not directly impact MWD's entitlements, it provides the numeric baseline needed to measure conservation and transfer programs, and it allows for implementation of agricultural conservation, land management, and other programs identified in the 1996 Integrated Resource Plan.

§1.4 Groundwater from Central Basin

The La Habra Heights County Water District (LHHCWD) business relationship with ODWD is essentially the first cooperative effort in the Central Basin intended to maximize regional water resources. Over sixty years ago, both Districts served mainly agricultural customers and independently operated separate well fields along the San Gabriel River. At that time, ODWD's predecessor, Edwin G. Hart Sr., lost all production from his wells. Through a mutually agreed settlement of a court action and resulting legal agreement, ODWD became invested in the Judson Well Field in unincorporated Los Angeles County. There are currently three active wells in and in the vicinity of the Judson Well Field known as the Joint Facilities; those wells are the sole groundwater source for ODWD.

During normal operations, all production from the Judson Well Field is pumped directly into the 4.3 MG La Mirada/Mills Reservoir, which has mutual benefits for both agencies. ODWD is entitled to store water in the Reservoir for ODWD uses. The remaining storage in the Reservoir belongs to LHHCWD and is pumped by the La Mirada Pump Plant to LHHCWD customers. ODWD has the ability to pump water back into the LHHCWD system with another metered interconnection on the discharge side of the La Mirada Pump Plant. This connection is a 10-inch tie-in, located on Mills Avenue at Close Street, and could be used should the LHHCWD La Mirada Pump Plant fail.

ODWD uses sodium hypochlorite (NaOCl) to disinfect water at the La Mirada/Mills Reservoir site to keep the system near 1 mg/L (ppm) of residual chlorine. After disinfection, groundwater gravity feeds ODWD system through a 16-inch metered connection. This meter is read daily by LHHCWD and ODWD and billed monthly.

For the Joint Facilities, ODWD shares 30.71% and LHHWCWD shares 69.29% for new capital improvement including new wells, transmission pipelines and other facilities. The operation and maintenance cost are shared according to percentage of water taken by each party during the year. The Joint Facilities allow ODWD to exercise its adjudicated rights in the Central Basin and avoid purchasing costly imported water from MWD via CBMWD. Currently, LHHWCWD has 2,596 AFY groundwater pumping rights in the Central Basin, and ODWD has 1,254 AFY groundwater pumping rights in the Central Basin.

In 1966, the Central Basin Judgment (see Appendix B) was executed limiting pumping rights in the Central Basin to 217,367 AFY. The Judgment permits carryover of rights of up to 20 percent and emergency over-pumping. In 1973, the Judgment was amended to provide for carryover rights. The Judgment also includes an “Exchange Pool” provision. The Exchange Pool provides a mechanism for parties with insufficient rights, which use groundwater as a sole source, to obtain additional allocations to allow for more groundwater pumping to meet such parties’ needs. Parties with supplemental annual water supplies are required to offer water rights to the Exchange Pool. The mandatory amount offered is the difference between the adjudicated right and one-half of the estimated water use. Water rights owners may also give voluntary offers of rights to the Exchange Pool. Producers that require additional supplies and do not have access to supplemental water supplies can request water from the Exchange Pool, first from mandatory offers and then from voluntary offers. A party, which purchased from the Exchange Pool, can carry over the difference between actual extraction and the amount purchased. A 1977 amendment to the Central Basin Judgment provides for temporary over-pumping during a declared water emergency. In 1985, an amendment was created which provides more flexibility in the Exchange Pool. A 1988 carryover provision allows 10 percent of an un-pumped water right to be used in the following year. If pumping exceeds 110 percent, then there is a corresponding reduction in rights the following year. In addition, the Water Replenishment District (WRD) can use 17,000 AF in an emergency for four months. In 1991, this carryover was increased from 10 to 20 percent and an exemption was allowed for contamination extraction from pumping rights. In August 1993, the Central Basin Judgment Work Group examined amendments to 1) allow greater flexibility to pump groundwater in times of drought, 2) examine exemptions for pumping contaminated water from replenishment, and 3) review the Exchange Pool provisions and administration.

Per the FY 2009-10 Central Basin Watermaster Service Report published by DWR, the past five year groundwater production in Central Basin averaged about 195,000 AFY. The projected groundwater production in Central Basin in the next twenty years is expected to remain the same.

Jurisdiction and authority over groundwater management for the entirety of the Central Basin is currently unclear. A multi-year process to define local groundwater management is still ongoing. In 2010, the Water Replenishment District of Southern California and other parties, including ODWD, sought to clarify permissible storage and other basin management activities by filing a motion to amend the Central Basin Judgment. Some parties to the Judgment, including CBMWD, opposed that motion and the Superior Court denied the motion on jurisdictional grounds, ruling the court did not have the power to add storage provisions to the Judgment (see Appendix C). That decision is now on appeal. Agencies with an interest in Central Basin groundwater management include the California Department of Water Resources

(DWR), the Association of California Water Agencies (ACWA), the Central Basin Municipal Water District (CBMWD), the Water Replenishment District of Southern California (WRD) and all parties to the Central Basin Judgment. CBMWD has released a groundwater management draft (Initial Study – Central Basin Groundwater Storage Plan: A Blueprint for Future Reliability) which is included in Appendix D.

§1.5 Recycled Water

The Los Angeles County Sanitation District tertiary wastewater treatment and reclamation plants supply source water to several water agencies, including CBMWD. This recycled water meets California Code of Regulations Title 22 Standards and is reliable and, in some circumstances, economically beneficial. Recycled water can reduce the dependence on imported water and can be utilized in landscape irrigation, some commercial and industrial processes, groundwater replenishment (subject to some regulatory restrictions), and seawater intrusion barriers.

Currently, ODWD has no recycled water demand. The major potential recycled water application in ODWD would be for landscape irrigation. Presently, the recycled water delivery system within CBMWD is limited by the need to construct expensive distribution infrastructure. CBMWD has the ability to deliver 5,000 AFY to 252 sites at present and plans to increase the deliveries in the future as its recycled water delivery infrastructure expands. Following the current expansion effort, it is expected that CBMWD's recycled water distribution system may be extended to ODWD. Should CBMWD make recycled water available, ODWD would consider a connection to such a system to supply recycled water to six sites including four schools, one golf course and one park with an estimated future demand of approximately 110 AFY.

Residents in the ODWD service area are served by the Los Angeles County Sanitation Districts. These Districts are signatories to the Joint Outfall System (JOS) which provides for the operation and maintenance of an interconnected system of wastewater collection, treatment, reuse, and disposal facilities across a large portion of the urban region. The JOS includes the following water reclamation plants (WRP):

- The Joint Water Pollution Control Plant (Carson)
- Whittier Narrows WRP (South El Monte)
- Los Coyotes WRP (Cerritos)
- San Jose Creek WRP (Industry)
- Long Beach WRP (Long Beach)
- Pomona WRP (Pomona)

In FY 2007-08, the JOS produced a total effluent of 490,998 AF. Of that total, 147,703 AF met Title 22 standards for recycled water and 67,936 AF (or 46.0%) was reused.

§1.6 Service Area Description and Five Year Development Plan

§1.6.1 ODWD Service Area and Location

ODWD is located in an unincorporated portion of southeastern Los Angeles County in California. The District is bordered by the City of Whittier on the north, by the City of Santa Fe Springs on the west, by the City of La Mirada on the south and by the City of La Habra on the east. The total service area is approximately 2.02 square miles (1,400 acres).

The service area has been fully built-out and there is no room for further development. However, the area may see densification of the land use if single family homes are converted to multi-family developments.

§1.6.2 Climate

ODWD lies in the Coastal Plain of Southern California. The climate is Mediterranean, which is characterized by typically warm and dry in summer, wet and cool in winter. Average precipitation for the Los Angeles Coastal Basin is approximately 13 inches per year, which is subject to change in a wide range. Years of relative drought compounded by years of relative excessive rainfall make the entire coastal plain highly dependent upon imported water and local groundwater. Nearly 90% of the total rainfall occurs from October through April.

The potential of climate changes on precipitation and water demand is being studied by MWD as well as other water agencies.

§1.6.3 ODWD Water Supply History

The first cooperative effort to supply water to the ODWD service area started when local wells stopped producing agricultural irrigation water due to over pumping. Later, the farmers drilled deep wells on the banks of the San Gabriel River on the north side of Washington Boulevard. Groundwater from deep wells was pumped through large pipelines (some of the pipelines were made of redwood) to a tank at the intersection of Telegraph Road and Mills Avenue, and water was distributed to the users from this point. The first water company was called Hillside Distribution Company. Carl J. Kriesant purchased this company in 1947 and renamed it Orchard Dale Service Company.

In the early 1950s, residential development in the area began to increase and an influx of consumers required immediate and extensive modernization of the water supply system. Because Orchard Dale Service Company was neither financially able nor inclined to make these improvements, the local citizens had a series of meetings to determine and implement the best way to meet the water demand. The local committee decided to put the formation of a County Water District to the vote of the people; the voting result was 364 in favor to 102 opposed. In 1954, Orchard Dale Water District was established. The District's residents then approved a \$500,000 bond to purchase and improve the water supply facilities. From that point in time, ODWD has grown to the present size of approximately 19,894 served population through 4,247 service connections. Customers are a mix of primarily single and multi-family residences in

addition to eight commercial/institutional customers. Water service is provided to all customers for domestic, irrigation, and fire protection uses.

Currently, ODWD has seven employees and the General Manager serves under the direction of the five-member Board of Directors. Each Director is elected to a four-year term by voters who reside within the service area.

The historical service connections are listed in Table 1.

Table 1 – Growth in Service Connections

Year	1954	1979	1995	2000	2005	2010
Service Area Connections	1,637	3,742	4,076	4,114	4,165	4,247

§1.6.4 Population and Growth

The California Department of Finance (DOF) State Census Data Center has generated reports and tabulations from data files released by the U.S. Census Bureau for the 2010 U.S. Census. These data have been analyzed to estimate the population served by ODWD per the assumption that unit density within the service area is similar to that of surrounding cities.

DOF reports data on a city, county and state-wide basis. The ODWD service area lies within unincorporated Los Angeles County; however, population density varies widely throughout the County and the average County population density is not representative of the high-density built-out nature of land use within the ODWD service area. For this reason, ODWD has adopted the following approach to estimating the service area population:

- Population density within the ODWD service area is consistent with the average population density in terms of persons per unit of the surrounding cities: La Mirada, Norwalk, Pico Rivera and Whittier.
- The number of active residential services is equivalent to the number of units served by ODWD. In 2010, there were 5,684 housing units. This represents the total number of single-family and multi-family connections (4,247) plus extra units (1,437). An extra unit is part of a multi-family complex with a master meter; all such units are accounted for in ODWD billing records.
- Even though the ODWD service area is built-out, some level of infill and densification is expected to occur, thus increasing the projected population. Projected population growth is assumed to be consistent with projections provided in the CBMWD 2010 UWMP for CBMWD's wholesale service area which includes the ODWD retail service area.

Table 2 shows the most representative population density for the ODWD service area at 3.5 persons per unit.

Table 2 – 2010 Population Density Calculation

Area City	Population	Households	Density (persons per unit)
La Mirada city	48,527	14,681	3.3
Norwalk city	105,549	27,130	3.9
Pico Rivera city	62,942	16,566	3.8
Whittier city	85,331	28,273	3.0
Total	302,349	86,650	3.5

Applying the ODWD population density to the number of units served by ODWD provides the estimated current population of 19,894:

$$Population = (dwelling\ units)(density) = (5,684\ units)\left(\frac{3.5\ persons}{unit}\right) = 19,894$$

This and the projected population estimates based on CBMWD's growth forecast are provided in Table 3.

Table 3 – Population Projection

	2010	2015	2020	2025	2030
Service Area Population	19,894	20,305	20,685	21,056	21,415

§1.7 Past Drought, Water Demand and Conservation Information

Southern California experienced a severe drought during 2002 with less than four inches of rain in the ODWD service area. Like other water retailers, ODWD was affected by that drought. The District has adopted an ordinance against non-beneficial water use.

In 2008, ODWD adopted Resolution No. 08-12-14 (see Appendix E) based on a Los Angeles County ordinance regarding voluntary water conservation. The Resolution recognizes the potential impact of future droughts and sets a goal of reducing water use by 10%.

Provisions of the Resolution are summarized below.

1. Adjust sprinklers and irrigation systems to avoid overspray, runoff and waste
2. Avoid watering lawns in the hot part of the day (i.e. between 9 AM and 6 PM) and on windy days
3. Install new drought tolerant landscaping, low-water-using trees and plants and efficient irrigation systems
4. Shut off decorative fountains, unless a water recycling system is used
5. Not hose down driveways, sidewalks and other paved surfaces, except when necessary for health or sanitary reasons
6. Install pool and spa covers to minimize water loss due to evaporation
7. Not allow the hose to run while washing any vehicle and to use a bucket or a hose with an automatic cutoff valve
8. Retrofit indoor plumbing fixtures with low-flow devices
9. Check faucets, toilets and pipes, both indoor and outdoor, including house service laterals and sprinkler piping, for leaks and repair them immediately, or upon demand of the Company.

An approximate reduction in demand of 12% has been achieved since adoption of the Resolution.

An improved metering program was adopted during the drought, and system losses were reduced. Table 4 shows historical system losses following implementation of the metering program.

Table 4 – Historical System Losses

Year	2006	2007	2008	2009	2010
System Loss Percentage ³	3.0%	1.4%	-0.3%	1.4%	1.8%

The goal is to control the projected average system loss within 2% by 2025. This goal has already been achieved and is anticipated to be maintained through the planning horizon of this UWMP.

ODWD and its customers are committed to the conservation of water as well as other environmental concerns. ODWD is committed to implementing water conservation programs in

³ Water loss represents the reconciliation of production and consumption. Water purchases and sales occur at staggered intervals making precise reconciliation a challenge. Historical records show that slightly more water was sold than purchased in 2008 which accounts for the negative percent loss that year.

accordance with Best Management Practices (BMPs) adopted by the California Urban Water Conservation Council (CUWCC).

ODWD regularly contributes financial support to local water education foundations, such as the Water Education Foundation and the California Water Awareness Campaign. A few copies of statements pertaining to those foundations are shown in Appendix F.

ODWD has been certified by the Association of California Water Agencies as having “met the criteria for certification in water management by demonstrating it has a program to maximize the conservation and the efficient use of water.” A copy of the certification is shown in Appendix G.

ODWD will continue to support and promote water conservation measures to ensure an adequate supply of water for its customers. ODWD will also continue to examine additional water supply sources including leased pumping rights, additional water recycling, water transfers, and additional imported water.

§2 Water Supply

§2.1 Historic Water Supply

ODWD has historically relied on two primary water sources: groundwater pumped from the Joint Facilities and imported water delivered from MWD via CBMWD. ODWD has recently acquired additional water rights in the Central Basin that will allow it to reduce its dependence on imported water, thereby increasing the reliability of its supply while avoiding the significant cost of such imported water. ODWD is now striving to avoid the use of imported water unless unanticipated problems arise with the Joint Facilities.

ODWD owns five reservoirs in the distribution system and the reservoirs are refilled nightly with groundwater and imported water from the distribution system. Water is distributed through 43 miles of pipeline to the customers including single family residential houses, eight commercial/institutional buildings and landscape irrigation. The District has potential supplies for additional imported water, recycled water, leased or purchased groundwater and water purchased from Suburban Water Company for emergency supplies.

The Central Basin lies within central Los Angeles County. It underlies all or parts of the cities of Artesia, Bellflower, Cerritos, Compton, Downey, Huntington Park, Lakewood, Los Angeles, Long Beach, Montebello, Paramount, Pico Rivera, Norwalk, Santa Fe Springs, Signal Hill, South Gate, Vernon and Whittier and portions of unincorporated Los Angeles County. The Central Basin is bounded on the northeast and east by the Elysian, Repetto, Merced and Puente Hills. The southeast boundary of the Central Basin is along Coyote Creek, which is used to separate the Central Basin from the Orange County Basin, although there is no physical barrier between the two basins. The southwest boundary is the Newport-Inglewood fault system. The depth of the Central Basin ranges from 1,600 to more than 2,200 feet. The main source of potable groundwater in the Central Basin is from the deeper aquifers of the San Pedro Formation (including from top to bottom, the Lynwood, Silverado and Sunnyside aquifers), which generally correlate with the Main and Lower San Pedro aquifers of Orange County. The shallower aquifers of the Alluvium and the Lakewood Formation (including the Gaspar, Exposition, Gardena-Gage, Hollydale and Jefferson aquifers) locally produce smaller volumes of potable water. In the northern portions of the Central Basin, referred to as the Forebay Area, many of the aquifers are merged and allow for direct recharge into the deeper aquifers. In the area referred to as the Pressure Area, the aquifers are separated by thick aquitards, which create confined aquifer conditions and protection from surface contamination. Total storage in the Central Basin is estimated to be approximately 13.8 million AF. Unused storage space is estimated to be approximately 1.1 million AF. Of the unused storage space, the amount available is approximately 330,000 AF assuming that up to 75 feet below the ground surface is actually available.

The Central Basin Judgment was rendered in 1965 and the Judgment was fully restated in 1991 to incorporate all prior amendments. The Judgment sets out the annual pumping rights of each of the parties; appoints DWR as watermaster; specifies the duties, powers and responsibilities of watermaster; provides for carryover of 20% of annual pumping rights for one year, or 35% carryover under the 'drought carryover' provisions; 20% overpumping to be paid back the

following year, or prorated over the following 5 years under specified conditions; provides for an exchange pool wherein a right not used by one party can be made available to another. The Judgment makes no express provision for storage and recapture of stored water beyond the specified extraction right and specifies that “no party...has any right to extract ground water from Central Basin except as herein affirmatively determined.”

Table 5 – ODWD Historic Water Supplies 2006 - 2010

Water Supply Sources	2006	2007	2008	2009	2010
Imported Water	1,216	1,437	973	834	754
Groundwater	1,125	1,187	1,449	1,437	1,402
Recycled Water	0	0	0	0	0
Total	2,341	2,624	2,422	2,271	2,156
Units of Measure: Acre-feet/Year. Data supplied by ODWD on March 31, 2011					

The average total water use from 2006 to 2010 was 2,363 AFY. However, with the ODWD’s acquisition in late 2010 of an additional 147 AF of pumping rights, together with increasing leases of additional pumping rights, ODWD will be able to increase the use of groundwater supplies to meet customer demand, while correspondingly decreasing its reliance on imported water. If necessary to meet future population growth, ODWD can either lease or purchase additional groundwater pumping rights, utilize imported water or, if such facilities exist for permissible uses, utilize recycled water. Also, customer conservation efforts to reduce demand can also be used to meet the demand resulting from such growth.

Water used for landscape irrigation can be replaced by recycled water if the recycled water distribution system is constructed at sometime in the future. The estimated future demand for recycled water is approximately 110 AFY based on recent data and projected growth. The actual usage depends on the climatic conditions.

The most recent five-year water supply amount for ODWD has been fairly stable.

§2.2 Projected Water Supply

CBMWD has been a member agency of MWD since 1954. CBMWD purchases supplemental imported water from MWD and wholesales it to local water retailers in its service area. As a member agency of CBMWD and per the *Amendment to Purchase Agreement for Imported Water to be Provided by the Central Basin Municipal Water District* effective January 1, 2010, for a five-year period, ODWD has a contractual right to purchase a base allocation of 1,450 AFY, 90% of which (1,305 AFY) is provided at the Tier 1 rate. CBMWD is able to provide excess amounts to the ODWD 10 cfs turnout to meet the District needs.

ODWD obtains groundwater from the Joint Facilities. ODWD has adjudicated pumping rights in the Central Basin of 1,254 AFY. The projected groundwater supply for the next twenty years will be the same as the current amount due to limited groundwater storage and pumping rights.

At times when the demand exceeds the adjudicated supply, ODWD can lease additional pumping rights from parties to the Central Basin Judgment that have excess pumping rights.

Because the area is built-out, the landscaped area will remain about the same. The current landscape irrigation average consumption is 106 AFY.

Due to fact that over 90% of the ODWD water is supplied to residential and commercial/institution uses at present and the same is projected for the future, the increased amount of water supplied from MWD through CBMWD has to be imported water. Because the water use patterns within the ODWD service area are unlikely to change, future water demand, and the need for supply increases, will be at a similar rate as that in the past ten years.

Projected water supply will be a mixture of imported water and groundwater, as shown in Table 6.

Table 6 – ODWD Current and Projected Water Supplies 2010 – 2030 (in AFY)

Water Supply Sources	2010	2015	2020	2025	2030
Imported Water	754	100	100	100	100
Groundwater	1,402	2,384	2,394	2,444	2,494
Total	2,156	2,494	2,494	2,544	2,594
Units of Measure: Acre-feet/Year					

§2.3 Water Facilities

ODWD relies on groundwater and imported water. ODWD has developed the Joint Facilities with LHCWD, including wells and storage facilities. ODWD is responsible to pay 30.71% for the rehabilitation and improvement of the shared infrastructure.

The District delivers water through a pressurized distribution system, which has approximately 43 miles of pipeline ranging from 2-inches to 16-inches in diameter. Approximately 60% of the pipeline improvements were constructed in the 1950s. In 2006, ODWD developed a Capital Improvement Plan (CIP) that identified \$7.5 million in system improvements. In 2007, the ODWD Board approved the CIP and the funding to implement the recommended improvements in a phased manner over time.

The District owns five reservoirs within one service zone, with a total of 4.52 million gallons of storage, and also shares storage with LHCWD in a 4.3 million gallon reservoir; two pump stations with a total of ten booster pumps with a total of 7,900 gpm designed pumping capacity; one 10 cfs MWD connection designated CenB-17 ; one 6-inch emergency interconnection with the Suburban Water Company (SWC) near the east end of ODWD's service boundary that supplies the ODWD system; and one connection with SWC near the north end of the ODWD service boundary to supply emergency water to SWC. The District performs routine maintenance on the entire system. Certified operators are responsible for motor and pump maintenance, and

leak and valve repair. Projects beyond routine maintenance are contracted with private contractors.

Table 7 – ODWD Water Supply Facilities

Reservoirs	
La Mirada/Mills (shared with LHHCWD)	4.3 MG
Telegraph Road	1.0 MG
Colima North	0.633 MG
Colima Middle	0.633 MG
Colima South	0.75 MG
Miller Road	<u>1.50 MG</u>
Total Storage	8.816 MG
Pump Stations	
Telegraph Road	
5 – 40 Hp Electric Pumps (450 gpm each)	
1 – 100 Hp Electric Pump (1,800 gpm)	
Colima Road	
4 – 30 Hp Electric Pumps (1,000 gpm each)	
Total Pumping Capacity: 9,050 gpm	
Service Connections	
Domestic	4,247
Agriculture	0
Recycled	0
Other	0

A computerized telemetry system is utilized to control and monitor the District's water system. All critical functions of the production system, including MWD valve control, pump control, reservoir water level, intrusion alarms, and operation process data collection can be controlled by the central computer. The computer also monitors pump run time/status, pump energy use, system pressure, and remote communication from the MWD meter and the La Mirada Reservoir. The telemetry computer and the remote locations are backed up by batteries that will supply up to four hours of operation in the event of a power failure. Authorized personnel can access the system from a remote location. Access to the various levels of the system is restricted based upon levels of management. The production processes are recorded and any problems found in the process triggers the alarm system. Each incident is logged and reported to the responsible person.

§2.4 Water Quality

MWD is responsible for complying with State and Federal drinking water regulations on imported water sold to CBMWD and other wholesale water agencies through active participation in processes that provide for the highest water quality from the State Water Project (SWP) and Colorado River Aqueduct (CRA) sources. Approximately 2.5 ppm of residual chloramine is kept in imported water. CBMWD places paramount importance on supplying safe drinking water to its customers and is responsible for ensuring compliance with State and federal drinking water

regulations with respect to the water it delivers to ODWD. ODWD is responsible for ensuring compliance in the individual distribution systems and at the customer meter. ODWD tests and monitors water quality on a routine basis in compliance with all applicable state and federal regulatory requirements.

Groundwater in the Central Basin is continually monitored for water quality because of its susceptibility to seawater intrusion. The Alamitos Barrier, located in the southeast portion of the Central Basin, provides a buffer between the groundwater basin and seawater intrusion. WRD water quality staff coordinates wellhead testing at approximately 160 groundwater wells in its service area, including the Judson Well Field, to ensure safe quality water supply. By outsourcing laboratory services for complex analytical tests, WRD helps purveyors save time and money while providing a valuable service for public safety. As a regional groundwater management agency for the Central and West Coast Groundwater Basins, WRD has several active programs to monitor, evaluate and mitigate water quality issues. If non-compliance is identified, WRD staff develops a recommended course of action and associated cost estimates to address the problem and to achieve compliance. WRD's Regional Groundwater Monitoring Program consists of a network of about 200 WRD and USGS-installed monitoring wells at 45 locations throughout the Central Basin. In addition, CBMWD assists the Central Basin purveyors, including ODWD, to meet drinking water standards with respect to groundwater quality through its Cooperative Basin-Wide Title 22 Groundwater Quality Monitoring Program. Title 22 refers to the California Code of Regulations pertaining to domestic and recycled water standards.

ODWD and LHHW contract with a DHS certified laboratory to perform water sample analysis, taken from widely separated sample stations within their respective service areas each week and from each operating well each month (see Appendix I). During the spring of each year, a complete chemical analysis for each well is performed. At the La Mirada Reservoir, ODWD uses sodium hypochlorite to disinfect groundwater supplied from the Joint Facilities. The residual chlorine is maintained at approximately 1 ppm in the distribution system.

§3 Water Demand

§3.1 Historic and Current Water Demand

In the past five years, ODWD water demand has decreased slightly. This decrease in water demand is attributed to regional and ODWD efforts in education of people and promotion of water conservation, as well as incentives for people to retrofit their homes with more water saving devices. During these five years, there has been relatively few land development projects and development is not expected to increase within the service area due primarily to the near built-out status of the service area.

Table 8 – ODWD Historic Water Demand

Sectors	2005	2010
Single Family Residential	1,851	1,765
Commercial/Institutional	282	97
Landscape Irrigation	169	54
Total	2,302	1,916
Units of Measure: Acre-feet/Year. Data supplied by ODWD on May 20, 2011		

The population growth from 2006 to 2010 was 0.55%. However, the water demand decreased by 8.6% over the same period due to the climate conditions, conservation and unpredictable water demand fluctuations.

§3.2 Application of the California Water Conservation Act

There are multiple methodologies in place for determining water use targets and complying with the Water Conservation Act. This section is dedicated to specifying chosen methodologies, justifying those choices, quantifying applicable parameters, performing calculations, stating conclusions about those calculations and applying those conclusions commensurate to the requirements of future water conservation goals as embodied in the Act.

§3.2.1 Baseline Per Capita Water Use

The baseline per capita water use was calculated at 108 GPCD and is the 10-year average from 2001 to 2010 as shown in Table 9.

Table 9 – Baseline Per Capita Water Use

Year	Supply (AFY)	Population	GPCD
2001	2,467	19,649	112
2002	2,496	19,676	113
2003	2,360	19,704	107
2004	2,468	19,731	112
2005	2,305	19,758	104
2006	2,341	19,785	106
2007	2,623	19,812	118
2008	2,422	19,840	109
2009	2,271	19,867	102
2010	2,156	19,894	97
Baseline Per Capita Water Use			108

§3.2.2 Adoption of Method 3

ODWD has adopted as its compliance methodology Method 3 as provided in DWR's *Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use* and as delineated in the California Water Conservation Act of 2009.

Per Method 3, the target for compliance per capita water use is 95% of the South Coast Hydrologic Region target or 142 GPCD.

§3.2.2 Verification of Minimum Water Reduction Requirement

The Baseline was determined to be 108 GPCD; therefore, verification of minimum water use reduction must be performed since the Baseline exceeds 100 GPCD. Based on data provided in Table 10, the minimum water use compliance target is 105 GPCD.

Table 10 – Minimum Water Use Reduction Verification

Year	Supply (AFY)	Population	GPCD
2004	2,468	19,731	112
2005	2,305	19,758	104
2006	2,341	19,785	106
2007	2,623	19,812	118
2008	2,422	19,840	109
Average for 5-year verification period			110
95% of verification average			105

§3.2.3 Summary of Water Use Baseline and Targets

As determined in previous sub-sections, the baseline per capita water use is 108 GPCD, the compliance per capita water use is 105 GPCD and the interim per capita water use is the midpoint between these figures. A summary is provided in Table 11.

Table 11 – Summary of Water Use Baseline and Targets

Year	2010	2015	2020
Water Use Designation	Baseline	Interim Target	Compliance Target
GPCD	108	106.5	105

§3.3 Projected Water Demand

ODWD has made great strides in water conservation over the past few years. These conservation efforts will be continued indefinitely. As such, the per capita water use achieved in 2010 (97 GPCD) has been applied to the projected population given in Table 3 in order to project future demand as shown in Table 12.

Table 12 – ODWD Current and Projected Water Demand 2010-2030

Water Supply Sources	2010	2015	2020	2025	2030
Residential	1,765.66	1,946	1,975	2,003	2,029
Commercial/Institutional	97.04	107	109	110	112
Landscape Irrigation	53.85	110	120	130	140
Losses	38.33	43	44	45	46
Total	1,954.88	2,206	2,248	2,288	2,326
Units of Measure: Acre-feet/Year.					

A future per capita water use of 97 GPCD assures that both interim and compliance water use targets will be met. The ratio of residential demand to commercial/institutional demand is assumed to be consistent with the average ratio for the period of 2006 to 2010. System losses are assumed to be 2% of all production.

Per the Southern California Association of Governments 2009 Profile of Los Angeles County, the percentage of households in Los Angeles County earning less than \$50,000, which is approximately consistent with 80% of the median income, is 50%. ODWD assumes that 50% of the water it projects to deliver to residential customers is used by low income households.

§3.3.1 Water Demand in a Normal Year

Projected normal year supply and demand are shown and compared in Table 13.

Table 13 – Projected Normal Year Supply and Demand Comparison

	2015	2020	2025	2030
Supply	2,494	2,494	2,544	2,594
Demand	2,206	2,248	2,288	2,326
Surplus	288	246	256	268
Difference as % of Supply	11.5%	9.9%	10.1%	10.3%
Difference as % of Demand	13.0%	11.0%	11.2%	11.5%

Normal year supply is as shown in Table 6. Normal year demand is as shown in Table 12. There are no deficits under normal year conditions.

§3.3.2 Water Demand in a Single Dry Year

There is no anticipated deviation from normal year to single dry year demand. Per the CBMWD 2010 UWMP Draft Tables 4-2 and 4-3, there is no anticipated deviation from normal year to single dry year supply. Table 14 provides a comparison of single dry year supply and demand.

Table 14 – Projected Single Dry Year Supply and Demand Comparison

	2015	2020	2025	2030
Supply	2,494	2,494	2,544	2,594
Demand	2,206	2,248	2,288	2,326
Surplus	288	246	256	268
Difference as % of Supply	11.5%	9.9%	10.1%	10.3%
Difference as % of Demand	13.0%	11.0%	11.2%	11.5%

Single dry year supply is as shown in Table 6. Single dry year demand is as shown in Table 12. There are no deficits under single dry year conditions.

§3.3.3 Water Demand in Multiple Dry-Year

There is no anticipated deviation from normal year to multiple dry year demand. The CBMWD 2010 UWMP projects a slight reduction in imported water supply availability during a multiple dry year event as shown in Table 15.

Table 15 – Imported Water Supply Variation under Multiple Dry Year Conditions

Year Number	2015	2020	2025	2030
1	97.7%	98.6%	100.0%	100.0%
2	98.2%	99.3%	100.0%	100.0%
3	99.1%	99.1%	99.1%	99.1%

Table 16 provides a comparison of multiple dry year supply and demand adapted per supply variation from CBMWD.

Table 16 – Multiple Dry Year Supply and Demand Comparison

Year		2015	2020	2025	2030
1	Supply	2,438	2,460	2,544	2,594
	Demand	2,206	2,248	2,288	2,326
	Surplus	232	212	256	268
	Difference as % of Supply	9.5%	8.6%	10.1%	10.3%
	Difference as % of Demand	10.5%	9.4%	11.2%	11.5%
2	Supply	2,450	2,477	2,544	2,594
	Demand	2,206	2,248	2,288	2,326
	Surplus	244	230	256	268
	Difference as % of Supply	10.0%	9.3%	10.1%	10.3%
	Difference as % of Demand	11.1%	10.2%	11.2%	11.5%
3	Supply	2,470	2,471	2,520	2,570
	Demand	2,206	2,248	2,288	2,326
	Surplus	264	223	232	244
	Difference as % of Supply	10.7%	9.0%	9.2%	9.5%
	Difference as % of Demand	12.0%	9.9%	10.2%	10.5%

There are no deficits under multiple dry year conditions.

§4 Reliability Planning

The objectives of water supply reliability planning are to deliver uninterrupted safe drinking water and non-potable water to the customers under all possible scenarios. Reliability of a water service system is expected for a successful water supply under normal year, single dry-year, multiple dry year and emergency conditions such as earthquakes, energy outages, etc. Efforts to address reliability are initiated at the regional wholesale (MWD), local wholesale (CBMWD) and retail (ODWD) levels.

§4.1 MWD Water Supply Reliability

Per the MWD 2010 Regional UWMP, the region can provide reliable water supplies under both single dry year and multiple dry year scenarios. MWD's analysis of supplies related to the State Water Project, the Colorado River Aqueduct, improvements in the Delta, existing and proposed regional storage and conjunctive use programs indicate that a supply surplus will be achieved under these planning conditions.

MWD's efforts in the development and implementation of its Integrated Resources Plan provide the groundwork for regional cooperation and coordination through the following balanced approach.

- A core resources strategy represents baseline efforts to manage water supply and demand conditions and to stabilize Metropolitan's traditional imports from the Colorado River and Northern California through the Sacramento-San Joaquin Delta. This strategy is based on known factors, including detailed planning assumptions about future demographic scenarios, water supply yields, and a range of observed historical weather patterns. Under this strategy, Metropolitan and its member agencies will advance water use efficiency through conservation and recycling, and with further local development such as groundwater recovery and seawater desalination.
- A cost-effective "supply buffer" will enable the region to adapt to future circumstances and foreseeable challenges. The buffer seeks to help protect the region from possible shortages caused by conditions that exceed the core resources strategy, starting with increased conservation and water-use efficiency on a region-wide basis.
- Foundational actions guide the region in determining alternative supply options for long-range planning. If future changed conditions—such as climate change or the availability of resources—exceed what is covered by Metropolitan's core resources and supply buffer, these alternatives would provide a greater contribution to water reliability than Metropolitan's imported water sources or any other single supply. These actions - including feasibility studies, research and regulatory review - would provide the foundation to develop alternative resources, if needed.

§4.2 CBMWD Water Supply Reliability

CBMWD is signatory to the Memorandum of Understanding Regarding Urban Water Conservation in California (MOU) and submits annual reports to California Urban Water Conservation Council (CUWCC) outlining progress towards implementing the Best Management Practices (BMP) in reliable water supply.

Along with MWD's reliability initiatives, CBMWD has taken important steps over the past decades to reduce the system vulnerability to extended drought and other potential threats such as investments in recycled water to replace imported water for non-potable application and the implementation of conservation devices. Based on its current water supply portfolio, CBMWD provides an adequate supply for the single dry year and multiple dry year scenarios. Recycled water supply is constant, as it is not subject to hydrologic changes in a certain year but is only limited by system constraints. Imported water from MWD is the only source that can fluctuate under different hydrological scenarios to meet single and multiple dry year demand. This fluctuation may range from 5% to 50% reduction of historical deliveries under various hydrological scenarios. Future reliability of imported water supplies will be based on the Bay-Delta fix that will include both ecological and operational changes.

CBMWD will continue to evaluate opportunities to increase its water supply portfolio including expansion of recycled water use, conservation programs, and conjunctive use programs to ensure reliable water supply to its member agencies.

§4.3 ODWD Water Supply Reliability

ODWD gets reliable groundwater through the Joint Facilities and stabilized imported water from MWD through CBMWD. ODWD has a reliable water distribution system that was able to supply water during recent dry-year and multiple dry-year scenarios.

As a retail member agency of CBMWD, ODWD is committed to implementing water conservation measures. To offset any future water shortage due to drought or catastrophes, ODWD continues to explore options for supplemental water supplies and seeks leased or purchased water pumping rights to develop a flexible and reliable supply portfolio.

In 2008, ODWD adopted Resolution No. 08-12-14 delineating its voluntary water conservation program (see Appendix E). Implementation of voluntary water conservation has reduced demand by 12% since adoption of the Resolution. These water conservation efforts reduce the stress on local supplies which contributes to enhanced reliability.

§4.4 Water Transfer and Exchange Opportunities

ODWD is seeking dry-year and emergency water transfer options. The connections to the Suburban Water System provide the mechanisms by which any such transfers could be implemented for both purveyors. Additional groundwater can be provided by LHCWD as an emergency source, as well as imported water from MWD through CBMWD.

§4.5 Planned Water Supply Projects and Programs

ODWD has implemented a system-wide valve replacement program aimed at reducing water loss due to leaking or inoperative appurtenances. The project involves the replacement of deteriorating valves of various sizes. Since 2007, 118 valves have been replaced. These valves are considered a significant source of water loss and their replacement, along with other routine maintenance and inspection, is expected to keep water loss below 2%.

ODWD is updating the distribution system by replacing a 14-inch transmission main. This project is also anticipated to help reduce water loss due to leaking.

§4.6 Water Quality Impacts on Reliability

ODWD supplies imported water to its customers from MWD through CBMWD and groundwater through the Joint Facilities. Since ODWD does not operate water resource facilities such as water intakes from surface water or water treatment plants and wells from groundwater, it does not have any direct responsibilities in water sampling or compliance. However, unforeseeable water quality issues could be a potential impact to water supply reliability.

The quality of groundwater in the confined aquifers in the Central Basin is generally suitable for domestic use. In 2009, water quality testing of this source indicated that dissolved-solids concentrations in the water ranged from 520 to 760 milligrams per liter (mg/l), which are below the secondary standard of 1,000 mg/l recommended by the U.S. Environmental Protection Agency (EPA), and concentrations of chloride do not exceed 100 mg/l, which are well below the secondary standard of 500 mg/l.

WRD monitors the water quality of the water extracted from the Central Basin for domestic use. This includes the Judson Well Field where the Joint Facilities are located. All water quality monitoring is done in accordance with Title 22 of the California Code of Regulations. Primary enforcement responsibility of the 1974 Safe Drinking Water Act, as embodied in the National Interim Primary Drinking Water Standards, was given to the State Department of Health Services (CDHS), now known as the Department of Public Health. The State has assumed primary enforcement responsibility through the passage of Senate Bill 1078, signed by the Governor in October of 1976. Chemical and bacteriological qualities of the Judson Well Field comply with all standards established in the Safe Drinking Water Act and related regulations.

The California Domestic Water Quality and Monitoring Regulations (Title 22, California Code of Regulations), adopted in January 1989, include requirements on Public Information, Section 64463.1. This section requires that each community water system distribute to each customer an annual report on the quality of the water served. The annual report for ODWD is distributed in the spring of each year. The results of the 2009 Annual Report Water Quality Report are illustrated in Appendix I: ODWD 2009 Annual Water Quality Report.

Water quality is not projected to have an adverse impact to the ODWD water supply.

§5 Water Conservation

§5.1 Overview

ODWD has made great strides in recent years in promoting and achieving water conservation on a per capita basis as shown in Table 9. The District intends to continue these efforts and expects to be able to maintain, if not further improve upon, the current water use level.

§5.2 Overall Management

Due to limited funding and staff, ODWD has restricted means to develop a comprehensive program to address water conservation issues. However, ODWD takes advantage of, and will continue to take advantage of, regional water conservation activities promoted by other agencies, such as WRD, MWD and CBMWD.

ODWD has been certified by the Association of California Water Agencies as having “met the criteria for certification in water management by demonstrating it has a program to maximize the conservation and efficient use of water”.

§5.3 Demand Management Measures (DMMs)

ODWD applies the following DMMs:

§5.3.1 DMM No.1 --- Interior and Exterior Water Audits

The majority of the ODWD customers are single family residents. Per capita water consumption is lower than that of other agencies situated in the Central Basin. If additional funding becomes available in the future, ODWD will institute the audit of its water distribution system.

§5.3.2 DMM No. 2 --- Plumbing Retrofit

ODWD, in conjunction with the funding provided by CBMWD, has participated in the Johnny Rebate Ultra – Low Flow Toilet (ULFT). CBMWD, as assisted by MWD, began a program in August 1991 to retrofit 25,000 high water using toilets with water saving ULF models. Volt View Tech was the contractor to implement the program, verify toilet installation, process and issue rebate checks, and maintain a database of all toilets rebated and to market the program. This program has been marketed throughout the Central Basin region as the “Johnny Rebate.” In May 1993, the program was expanded to include all single family residents in the Central Basin. A \$75 and \$37.50 (one- half) rebate was offered for the first and second ULF toilet installed in a dwelling unit, respectively. The maximum number of rebates offered was two per dwelling unit. All property owners with apartments, condominiums, commercial or industrial properties were also eligible to participate in the program. The Johnny Rebate program was expanded for an additional year, to June 1995, due to the additional demand, and an additional 12,500 rebates brought the total number to 37,500. All 37,500 rebates were exhausted by June 1995. Volt View Tech tracked each ULF toilet in the program by customer name and address via a database. The

financial status is maintained in a customer database. ODWD incurred no costs for this program. Approximately 12 Johnny Rebates were made in the ODWD service area. The estimated water saving is 0.48 acre-feet over a ten year period per toilet.

In 1991, ODWD began a program to distribute water conservation kits to customers with the assistance and funding of the CBMWD. The kits contained one or two showerheads, two toilet dams, leak detection dye tables, and a water conservation information booklet. Since 1991, approximately three thousand water conservation kits have been distributed in the ODWD service area and it was estimated the kits would save approximately 67 AFY. Additional water savings have been realized by the consumer by reducing the energy cost to heat water.

On January 13, 2005, Central Basin Municipal Water District Board President Bob Apodaca joined with Orchard Dale Water District Directors Cliff Lee, Joe Kennedy, Elden Hughes and Bob Noonan to proudly present the California High School Boys and Girls Basketball Teams with a check for \$5,805.00 for the teams' participation in volunteering to help distribute 387 Ultra-Low-Flush (ULF) toilets.

California High School's Assistant Principal of Business and Activities Ben Murillo, along with coaches Brian Barber and Leonard Espinoza, accepted the check on behalf of the team. A CBMWD press release was issued on January 25, 2005 that stated the following:

"Through the volunteer efforts of the California High School Basketball Teams, we were able to distribute enough ultra-low-flush toilets to save more than three million gallons of water per year," said Apodaca. "These athletes have made an enormous contribution to its community that will last far into the future."

"We are proud to be able to sponsor an event that gives back to the community in so many ways," said Orchard Dale Water District Board President Cliff Lee. "Not only were we able to provide the community with free ultra-low-flush toilets, but we were also able to help this local high school earn money to support its extra-curricular activities."

Since 1995, CBMWD and ODWD have worked with non-profit, community-based organizations and local high schools to promote conservation programs while helping them earn money for their assistance. These organizations receive funding for each old "water-wasting" toilet that is returned for recycling. The money raised is used for a variety of items ranging from purchasing team uniforms to funding school improvements. The California High School Basketball Teams will use their money toward uniforms and equipment.

The ULF Toilet distribution program was established to provide the public with free high-quality toilets that save an average of 26 gallons of water per day. The programs are conducted annually throughout CBMWD's service area. The CBMWD contribution to this particular program was \$22,740.00 and the ODWD contribution was \$22,000.00 for a total contribution to the ULF of \$44,740.00.

Ongoing efforts include the High-Efficiency Toilet (HET) programs implemented by CBMWD. These programs are anticipated to provide additional conservation in the coming years.

§5.3.3 DMM No. 3 --- System Water Audits, Leak Detection and Repair

ODWD is currently engaged in a valve replacement program and a transmission main replacement project aimed at reducing water loss due to leaks.

ODWD's current water loss is less than 2% which exceeds industry standards. For this reason, additional efforts related to reducing water loss are unnecessary. ODWD will implement water audits, leak detection and repair in the future if challenges with water loss arise.

§5.3.4 DMM No.4 --- Metering with Commodity Rates

ODWD is fully metered for all customers. The current schedule features a flat bi-monthly service charge for domestic services 2-inches and smaller, based on actual size, as well as a flat monthly service charge for 3-inches or larger meters, also based on size and a commodity rate for each, based on volume of use. New meter installation costs are part of service connection fees. ODWD will continue to install and read meters on all new services and continue to conduct a meter replacement program.

§5.3.5 DMM No. 5 --- Large Landscape Conservation Programs and Incentives

ODWD has identified all large landscape users within its service area, which include Candlewood Golf Course, Ceres School, Gunn Park, McKibben School, La Colima School, Los Angeles County Sheriff Academy, St. Gregory School, Telechron School and Zoe Fellowship School, with a total estimated irrigation demand of 110 AFY.

ODWD has recently paid Generation Water, a non-profit enterprise specializing in water audits and irrigation surveys, to perform water audits at Ceres School, McKibben School, La Colima School, St. Gregory School and Telechron School. ODWD expects that changes in irrigation facilities at those schools will result in further water savings.

The Los Angeles County Department of Public Works adopted a landscape ordinance identical for all practical purposes, to AB325 on December 7, 1992, which is applicable to ODWD.

§5.3.6 DMM No. 6 --- High Efficiency Washing Machine Rebate Programs

ODWD has no rebate programs. However, CBMWD in cooperation with MWD continues to implement region-wide rebate programs for qualifying washing machines.

§5.3.7 DMM No. 7 --- Public Information

ODWD has offered various public information programs to its customers in cooperation with CBMWD. ODWD has contributed financial support to water conservation educational programs, such as the Water Education Foundation and the Water Awareness Campaign. Through various

kinds of education from internet, interactive games, ads, announcements, and news releases, water saving tips and the importance of water conservation have been learned, promoted and applied.

ODWD has brochures that focus on water awareness and water conservation that are available free of charge at the ODWD office.

ODWD and CBMWD provide public speakers to interested forums. The speakers promote water awareness and conservation.

The ODWD website includes information on current water conservation programs and activity available to its customers.

§5.3.8 DMM No. 8 --- School Education

ODWD has contributed financial support to water conservation educational school programs, such as the Friends of the Whittier Hills Association and the Water Association Foundation. In February 2000, ODWD participated in a program to educate local children in Whittier and Puente Hills about their local watershed. Students were transported to various interest points and were accompanied on hikes. In December 2000, ODWD contributed to the Water Association Foundation, which offers a variety of programs to teach students about the history, geography and science of water. The programs also teach students about difficult political policy decisions surrounding water issues. Foundation programs are suitable for students in grades K-14. In addition, the Foundation serves as the California coordinator for the National Project Water Education for Teachers (WET) K-12 program.

In August 1993, in cooperation with CBMWD, ODWD began an education program in selected elementary (K-6) schools. The program promoted by MWD, was called “Water Hunt.” The goal of the program was to assist local schools in water education and to distribute low-flow showerheads. The program materials and message were later modified and the program name was changed to “Planet Protector School Education Program.” The importance of water recycling and conservation were stressed together as the key components to the students. Materials designed by the CBMWD staff were delivered to each school and to each student. The materials include:

- Teacher instructions;
- A parent letter describing the program and the need for water recycling and conservation as well as construction information;
- A showerhead flow rate bag;
- Leak detection dye tablets;
- A “Johnny Rebate” brochure;
- A household survey (for MWD purposes);
- A “Planet Protector” comic book.

Upon completion of the survey, each student received a packet containing a wristwatch, a fast food coupon, and a certificate of participation and parents were invited to request one or two

low-flow showerheads by signing the survey card. The showerheads were provided free of charge. All students who participated were invited to attend either a Los Angeles Dodger or a California Angel baseball game as guests of the program sponsors. Over 7,500 children within CBMWD and WBMWD participated in the program. Of those students, 1,304 in the CBMWD service area requested and received free low-flow showerheads.

§5.3.9 DMM No. 9 --- Commercial and Industrial Water Conservation

ODWD has minor commercial services and there is no industrial or any kind of production process. This DMM is not applicable in ODWD service area.

§5.3.10 DMM No. 10 --- Wholesale Agency Assistance Programs

As a part of its “Shut Your Tap!” Conservation Campaign, CBMWD hosts a bi-monthly event called the “Shut Your Tap! Roundtable”. The Roundtable provides a forum for cities, water agencies and interested parties to share ideas and information on conservation trends and issues. The setting provides for interaction and networking among area water stakeholders.

In order to provide member cities with support for their marketing, outreach and enforcement of local mandatory water conservation ordinances, a “Water Use Efficiency Ordinance Tool Kit” was developed by CBMWD. The kit includes a cover letter, sample ordinances, a sample staff report template, sample violation notices and ordinance enforcement collateral.

To add to the advertising opportunities of its campaign partners, a “Conservation Messaging Tool Kit” was provided to member cities and agencies by CBMWD. The kit includes water conservation tip sheets, door hangers, bill inserts, local cable television announcements, countertop tent cards and sample newsletter articles.

§5.3.11 DMM No. 11 --- Conservation Pricing, Water Service and Sewer Service

ODWD uses a uniform pricing structure that is designed to promote conservation.

§5.3.12 DMM No. 12 --- Water Conservation Coordinator

The General Manager serves as ODWD’s Water Conservation Coordinator as part of his job duties due to limited staff.

§5.3.13 DMM No. 13 --- Water Waste Prohibition

ODWD stringently applies its Rules and Regulations Governing Water Service and Water Consumers throughout its service area. Section 6.5 of those Rules and Regulations sets forth the regulations concerning waste of water. Under that section, ODWD may refuse further water service to a consumer until the stated condition is remedied if the consumer uses water carelessly, wastes water in a negligent manner, allows water to escape into the streets within the boundaries of the District or adjoining property either willfully, carelessly, or on account of defective or inadequate privately owned water lines, mains or other facilities, or due to inadequate

preparation of the land development or improvement. The General Manager has the right to discontinue services to any consumer who is in violation of the rules and regulations.

§5.3.14 DMM No. 14 --- Residential Ultra-low-flush Toilet Replacement Programs

As a member agency to CBMWD, the District participates in CBMWD's Ultra-Low-Flush Toilet (ULFT) distribution program. CBMWD's Ultra-Low-Flush Toilet (ULFT) distribution program was established to provide the public with free high-quality ULFTs that conserve water. The intent of this program is to encourage the public to change out their older water-wasting toilets (3 gallons and up) with new ULFTs that are available through this program.

§5.4 Funding

ODWD seeks funding to fully apply DMMs and improve the existing system. If funding is awarded, it will benefit the ODWD water consumers. ODWD will provide education and devices that will conserve water, reduce urban runoff, reduce imported water, and increase local water supply reliability.

With assistance and funding by CBMWD and MWD, ODWD offers financial incentives to encourage water conservation. Public information and school information programs can result in lower consumption of water, which results in a lower water bill.

The "Johnny Rebate" program funded and administered by CBMWD, financially awards the consumers who convert to ULFT.

ODWD is committed to furthering water conservation programs and strives to implement the above DMMs within the District to the fullest extent, in conjunction with CBMWD and MWD water conservation programs.

§6 Water Shortage Contingency Plan

§6.1 Water Shortage Emergency Response

ODWD recognizes the importance of DMMs in reducing water demand and will continue to implement water conservation programs. The District will increase media attention during a shortage and will promote public water education programs, encourage property owners to apply for irrigation and interior water use surveys and continue to advertise the importance of installing ULFT plumbing fixtures. It is anticipated that the media will help and the public will cooperate during any water shortage period.

To offset future potential water shortages due to drought or disaster, ODWD continues to explore options for supplemental water supplies. ODWD will continue to seek potential leased or purchased water pumping rights and will work to investigate and pursue obtaining new sources of supply, including recycled water.

ODWD currently relies 100% on groundwater pumped from the Central Basin. This is an extremely reliable source and there is no anticipated need for a water shortage contingency plan related to groundwater supply.

CBMWD will be subject to MWD's Water Supply Allocation Plan (WSAP). In the unlikely event that ODWD becomes reliant on imported water in the future, CBMWD will allocate a reduced level of supply to its retail member agencies per the CBMWD Imported Water Supply Allocation Policy (See Appendix J).

§6.2 Revenue and Expenditure Impacts

A significant drop in water supply will have a negative impact on ODWD's revenue stream since water rates are tied to volumetric deliveries. Pursuant to Section 2 of the ODWD Rules and Regulations Governing Water Service and Water Consumers (see Appendix K), the Board may modify rates and charges in accordance with California Law to compensate for lost revenue due a water shortage.

All surplus revenues that the District collects, such as penalties for failure to comply with mandatory water conservation measures, are used to fund and promote water conservation programs and enforcement, and other facility improvements.

§6.3 Reduction Measuring Mechanism

Under normal water supply conditions, production figures are recorded daily and incorporated into daily and monthly reports. Following each fiscal year end, reports documenting water supply and demand are generated. The records are maintained by the Assistant General Manager and reviewed by the General Manager.

During a drought, supply and demand are reviewed daily and weekly. Monthly goals are established. The General Manager reports the status of conservation efforts to the Board of Directors on a monthly basis. During a disaster shortage, the ODWD response will reflect ODWD's Emergency Response Plan.

§7 Water Recycling

§7.1 Recycled Water Application

Recycled water is a source that, as compared to imported water, is generally less expensive, is more reliable in a drought, is consistent with statewide goals for water supply and is acceptable for landscape irrigation.

There is currently no source of recycled water within the ODWD service area. There is currently no plan to extend the CBMWD recycled water distribution system to ODWD.

The major ODWD potential recycled water users include the following:

- Candlewood Golf Club
- Ceres School
- Los Angeles County Department of Parks and Recreation
- McKibben School
- La Colima School
- Telechron School
- St. Gregory School
- Zoe Fellowship School
- Los Angeles County Sheriff's Department Regional Training Facility
- Los Angeles County landscaped medians

The present demand for irrigation uses is an average of 110 AFY. Compared with the annual water demand, this is less than 5%.

Per the CBMWD 2010 UWMP, CBMWD's marketing efforts have been successful in changing the perception of recycled water from merely a conservation tool with minimal application to a business enhancement tool that lowers operating costs while increasing the reliability of the water supply.

CBMWD is making funds available to assist customers with retrofitting on-site plumbing. Optimizing recycled water use in the Central Basin is one of the areas of focus of the CBMWD Recycled Water Master Plan Update which is anticipated to be completed in mid-2011.

§7.2 Plan for Optimizing the Use of Recycled Water

There is not a big market for recycled water application in the ODWD service area. ODWD is not pursuing the development of recycled water at this time based on the following observations:

- recycled water is currently not available
- ODWD has a very small demand for applicable uses
- developing recycled water is not needed to achieve ODWD's water conservation goals

Upon release of the CBMWD Recycled Water Master Plan Update Draft, ODWD will review the regional plan for possible recycled water implementation and determine whether that updated plan will result in any changes to the foregoing observations.

Appendix A

Urban Water Management Planning Act

Section K: California Water Code, Division 6, Part 2.6: Urban Water Management Planning

The following sections of California Water Code Division 6, Part 2.6, are available online at <http://www.leginfo.ca.gov/calaw.html>.

Chapter 1. General Declaration and Policy	§10610-10610.4
Chapter 2. Definitions	§10611-10617
Chapter 3. Urban Water Management Plans	
Article 1. General Provisions	§10620-10621
Article 2. Contents of Plans	§10630-10634
Article 2.5. Water Service Reliability	§10635
Article 3. Adoption And Implementation of Plans	§10640-10645
Chapter 4. Miscellaneous Provisions	§10650-10656

Chapter 1. General Declaration and Policy

10610. This part shall be known and may be cited as the “Urban Water Management Planning Act.”

10610.2.

- (a) The Legislature finds and declares all of the following:
- (1) The waters of the state are a limited and renewable resource subject to ever-increasing demands.
 - (2) The conservation and efficient use of urban water supplies are of statewide concern; however, the planning for that use and the implementation of those plans can best be accomplished at the local level.
 - (3) A long-term, reliable supply of water is essential to protect the productivity of California's businesses and economic climate.
 - (4) As part of its long-range planning activities, every urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry water years.
 - (5) Public health issues have been raised over a number of contaminants that have been identified in certain local and imported water supplies.
 - (6) Implementing effective water management strategies, including groundwater storage projects and recycled water projects, may require specific water quality and salinity targets for meeting groundwater basins water quality objectives and promoting beneficial use of recycled water.

- (7) Water quality regulations are becoming an increasingly important factor in water agencies' selection of raw water sources, treatment alternatives, and modifications to existing treatment facilities.
- (8) Changes in drinking water quality standards may also impact the usefulness of water supplies and may ultimately impact supply reliability.
- (9) The quality of source supplies can have a significant impact on water management strategies and supply reliability.
- (b) This part is intended to provide assistance to water agencies in carrying out their long-term resource planning responsibilities to ensure adequate water supplies to meet existing and future demands for water.

10610.4. The Legislature finds and declares that it is the policy of the state as follows:

- (a) The management of urban water demands and efficient use of water shall be actively pursued to protect both the people of the state and their water resources.
- (b) The management of urban water demands and efficient use of urban water supplies shall be a guiding criterion in public decisions.
- (c) Urban water suppliers shall be required to develop water management plans to actively pursue the efficient use of available supplies.

Chapter 2. Definitions

10611. Unless the context otherwise requires, the definitions of this chapter govern the construction of this part.

10611.5. “Demand management” means those water conservation measures, programs, and incentives that prevent the waste of water and promote the reasonable and efficient use and reuse of available supplies.

10612. “Customer” means a purchaser of water from a water supplier who uses the water for municipal purposes, including residential, commercial, governmental, and industrial uses.

10613. “Efficient use” means those management measures that result in the most effective use of water so as to prevent its waste or unreasonable use or unreasonable method of use.

10614. “Person” means any individual, firm, association, organization, partnership, business, trust, corporation, company, public agency, or any agency of such an entity.

10615. “Plan” means an urban water management plan prepared pursuant to this part. A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities. The components of the plan may vary according to an individual community or area's characteristics and its capabilities to efficiently use and conserve water. The plan shall address measures for residential, commercial, governmental, and industrial water demand management as set forth in Article 2 (commencing with Section 10630) of Chapter 3. In addition, a strategy and time schedule for implementation shall be included in the plan.

10616. “Public agency” means any board, commission, county, city and county, city, regional agency, district, or other public entity.

10616.5. “Recycled water” means the reclamation and reuse of wastewater for beneficial use.

10617. “Urban water supplier” means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems subject to Chapter 4 (commencing with Section 116275) of Part 12 of Division 104 of the Health and Safety Code.

Chapter 3. Urban Water Management Plans

Article 1. General Provisions

10620.

- (a) Every urban water supplier shall prepare and adopt an urban water management plan in the manner set forth in Article 3 (commencing with Section 10640).
- (b) Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.
- (c) An urban water supplier indirectly providing water shall not include planning elements in its water management plan as provided in Article 2 (commencing with Section 10630) that would be applicable to urban water suppliers or public agencies directly providing water, or to their customers, without the consent of those suppliers or public agencies.
- (d) (1) An urban water supplier may satisfy the requirements of this part by participation in areawide, regional, watershed, or basinwide urban water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use.

- (2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.
- (e) The urban water supplier may prepare the plan with its own staff, by contract, or in cooperation with other governmental agencies.
- (f) An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.

10621.

- (a) Each urban water supplier shall update its plan at least once every five years on or before December 31, in years ending in five and zero.
- (b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days prior to the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.
- (c) The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).

Article 2. Contents of Plans

10630. It is the intention of the Legislature, in enacting this part, to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied.

10631. A plan shall be adopted in accordance with this chapter that shall do all of the following:

- (a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.
- (b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a). If groundwater is identified as an existing or planned source of

water available to the supplier, all of the following information shall be included in the plan:

- (1) A copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.
 - (2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.
 - (3) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.
 - (4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.
- (c) (1) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:
- (A) An average water year.
 - (B) A single dry water year.
 - (C) Multiple dry water years.
- (2) For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.

- (d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.
- (e) (1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses:
 - (A) Single-family residential.
 - (B) Multifamily.
 - (C) Commercial.
 - (D) Industrial.
 - (E) Institutional and governmental.
 - (F) Landscape.
 - (G) Sales to other agencies.
 - (H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.
 - (I) Agricultural.
- (2) The water use projections shall be in the same five-year increments described in subdivision (a).
- (f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:
 - (1) A description of each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following:
 - (A) Water survey programs for single-family residential and multifamily residential customers.
 - (B) Residential plumbing retrofit.
 - (C) System water audits, leak detection, and repair.
 - (D) Metering with commodity rates for all new connections and retrofit of existing connections.

- (E) Large landscape conservation programs and incentives.
 - (F) High-efficiency washing machine rebate programs.
 - (G) Public information programs.
 - (H) School education programs.
 - (I) Conservation programs for commercial, industrial, and institutional accounts.
 - (J) Wholesale agency programs.
 - (K) Conservation pricing.
 - (L) Water conservation coordinator.
 - (M) Water waste prohibition.
 - (N) Residential ultra-low-flush toilet replacement programs.
- (2) A schedule of implementation for all water demand management measures proposed or described in the plan.
 - (3) A description of the methods, if any, that the supplier will use to evaluate the effectiveness of water demand management measures implemented or described under the plan.
 - (4) An estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the supplier's ability to further reduce demand.
- (g) An evaluation of each water demand management measure listed in paragraph (1) of subdivision (f) that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration shall be given to water demand management measures, or combination of measures, that offer lower incremental costs than expanded or additional water supplies. This evaluation shall do all of the following:
 - (1) Take into account economic and noneconomic factors, including environmental, social, health, customer impact, and technological factors.
 - (2) Include a cost-benefit analysis, identifying total benefits and total costs.
 - (3) Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost.

- (4) Include a description of the water supplier's legal authority to implement the measure and efforts to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation.
- (h) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs, other than the demand management programs identified pursuant to paragraph (1) of subdivision (f), that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single-dry, and multiple-dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.
- (i) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.
- (j) For purposes of this part, urban water suppliers that are members of the California Urban Water Conservation Council shall be deemed in compliance with the requirements of subdivisions (f) and (g) by complying with all the provisions of the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated December 10, 2008, as it may be amended, and by submitting the annual reports required by Section 6.2 of that memorandum.
- (k) Urban water suppliers that rely upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c).

10631.1.

- (a) The water use projections required by Section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code,

as identified in the housing element of any city, county, or city and county in the service area of the supplier.

- (b) It is the intent of the Legislature that the identification of projected water use for single-family and multifamily residential housing for lower income households will assist a supplier in complying with the requirement under Section 65589.7 of the Government Code to grant a priority for the provision of service to housing units affordable to lower income households.

10631.5.

- (a) (1) Beginning January 1, 2009, the terms of, and eligibility for, a water management grant or loan made to an urban water supplier and awarded or administered by the department, state board, or California Bay-Delta Authority or its successor agency shall be conditioned on the implementation of the water demand management measures described in Section 10631, as determined by the department pursuant to subdivision (b).
- (2) For the purposes of this section, water management grants and loans include funding for programs and projects for surface water or groundwater storage, recycling, desalination, water conservation, water supply reliability, and water supply augmentation. This section does not apply to water management projects funded by the federal American Recovery and Reinvestment Act of 2009 (Public Law 111-5).
- (3) Notwithstanding paragraph (1), the department shall determine that an urban water supplier is eligible for a water management grant or loan even though the supplier is not implementing all of the water demand management measures described in Section 10631, if the urban water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for implementation of the water demand management measures. The supplier may request grant or loan funds to implement the water demand management measures to the extent the request is consistent with the eligibility requirements applicable to the water management funds.
- (4) (A) Notwithstanding paragraph (1), the department shall determine that an urban water supplier is eligible for a water management grant or loan even though the supplier is not implementing all of the water demand management measures described in Section 10631, if an urban water supplier submits to the department for approval documentation demonstrating that a water demand management measure is not locally cost effective. If the department determines that the documentation submitted by the urban water supplier fails to demonstrate that a water demand management measure is not locally cost effective, the

department shall notify the urban water supplier and the agency administering the grant or loan program within 120 days that the documentation does not satisfy the requirements for an exemption, and include in that notification a detailed statement to support the determination.

(B) For purposes of this paragraph, “not locally cost effective” means that the present value of the local benefits of implementing a water demand management measure is less than the present value of the local costs of implementing that measure.

(b) (1) The department, in consultation with the state board and the California Bay-Delta Authority or its successor agency, and after soliciting public comment regarding eligibility requirements, shall develop eligibility requirements to implement the requirement of paragraph (1) of subdivision (a). In establishing these eligibility requirements, the department shall do both of the following:

(A) Consider the conservation measures described in the Memorandum of Understanding Regarding Urban Water Conservation in California, and alternative conservation approaches that provide equal or greater water savings.

(B) Recognize the different legal, technical, fiscal, and practical roles and responsibilities of wholesale water suppliers and retail water suppliers.

(2) (A) For the purposes of this section, the department shall determine whether an urban water supplier is implementing all of the water demand management measures described in Section 10631 based on either, or a combination, of the following:

(i) Compliance on an individual basis.

(ii) Compliance on a regional basis. Regional compliance shall require participation in a regional conservation program consisting of two or more urban water suppliers that achieves the level of conservation or water efficiency savings equivalent to the amount of conservation or savings achieved if each of the participating urban water suppliers implemented the water demand management measures. The urban water supplier administering the regional program shall provide participating urban water suppliers and the department with data to demonstrate that the regional program is consistent with this clause. The department shall review the data to determine whether the urban water suppliers in the regional program are meeting the eligibility requirements.

- (B) The department may require additional information for any determination pursuant to this section.
- (3) The department shall not deny eligibility to an urban water supplier in compliance with the requirements of this section that is participating in a multiagency water project, or an integrated regional water management plan, developed pursuant to Section 75026 of the Public Resources Code, solely on the basis that one or more of the agencies participating in the project or plan is not implementing all of the water demand management measures described in Section 10631.
- (c) In establishing guidelines pursuant to the specific funding authorization for any water management grant or loan program subject to this section, the agency administering the grant or loan program shall include in the guidelines the eligibility requirements developed by the department pursuant to subdivision (b).
- (d) Upon receipt of a water management grant or loan application by an agency administering a grant and loan program subject to this section, the agency shall request an eligibility determination from the department with respect to the requirements of this section. The department shall respond to the request within 60 days of the request.
- (e) The urban water supplier may submit to the department copies of its annual reports and other relevant documents to assist the department in determining whether the urban water supplier is implementing or scheduling the implementation of water demand management activities. In addition, for urban water suppliers that are signatories to the Memorandum of Understanding Regarding Urban Water Conservation in California and submit annual reports to the California Urban Water Conservation Council in accordance with the memorandum, the department may use these reports to assist in tracking the implementation of water demand management measures.
- (f) This section shall remain in effect only until July 1, 2016, and as of that date is repealed, unless a later enacted statute, that is enacted before July 1, 2016, deletes or extends that date.

10631.7. The department, in consultation with the California Urban Water Conservation Council, shall convene an independent technical panel to provide information and recommendations to the department and the Legislature on new demand management measures, technologies, and approaches. The panel shall consist of no more than seven members, who shall be selected by the department to reflect a balanced representation of experts. The panel shall have at least one, but no more than two, representatives from each of the following: retail water suppliers, environmental organizations, the business community, wholesale water suppliers, and academia. The panel shall be convened by January 1, 2009, and shall report to the

Legislature no later than January 1, 2010, and every five years thereafter. The department shall review the panel report and include in the final report to the Legislature the department's recommendations and comments regarding the panel process and the panel's recommendations.

10632. The plan shall provide an urban water shortage contingency analysis which includes each of the following elements which are within the authority of the urban water supplier:

- (a) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions which are applicable to each stage.
- (b) An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.
- (c) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.
- (d) Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.
- (e) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.
- (f) Penalties or charges for excessive use, where applicable.
- (g) An analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.
- (h) A draft water shortage contingency resolution or ordinance.
- (i) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.

10633. The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water

supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area, and shall include all of the following:

- (a) A description of the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.
- (b) A description of the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.
- (c) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.
- (d) A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.
- (e) The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.
- (f) A description of actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.
- (g) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

10634. The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

Article 2.5. Water Service Reliability

10635.

- (a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand

assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.

- (b) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.
- (c) Nothing in this article is intended to create a right or entitlement to water service or any specific level of water service.
- (d) Nothing in this article is intended to change existing law concerning an urban water supplier's obligation to provide water service to its existing customers or to any potential future customers.

Article 3. Adoption and Implementation of Plans

10640. Every urban water supplier required to prepare a plan pursuant to this part shall prepare its plan pursuant to Article 2 (commencing with Section 10630).

The supplier shall likewise periodically review the plan as required by Section 10621, and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

10641. An urban water supplier required to prepare a plan may consult with, and obtain comments from, any public agency or state agency or any person who has special expertise with respect to water demand management methods and techniques.

10642. Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan. Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon. Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code. The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies. A privately owned water supplier shall provide an equivalent notice within its service area. After the hearing, the plan shall be adopted as prepared or as modified after the hearing.

10643. An urban water supplier shall implement its plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan.

10644.

- (a) An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. Copies of amendments or changes to the plans shall be submitted to the department, the California State Library, and any city or county within which the supplier provides water supplies within 30 days after adoption.
- (b) The department shall prepare and submit to the Legislature, on or before December 31, in the years ending in six and one, a report summarizing the status of the plans adopted pursuant to this part. The report prepared by the department shall identify the exemplary elements of the individual plans. The department shall provide a copy of the report to each urban water supplier that has submitted its plan to the department. The department shall also prepare reports and provide data for any legislative hearings designed to consider the effectiveness of plans submitted pursuant to this part.
- (c)
 - (1) For the purpose of identifying the exemplary elements of the individual plans, the department shall identify in the report those water demand management measures adopted and implemented by specific urban water suppliers, and identified pursuant to Section 10631, that achieve water savings significantly above the levels established by the department to meet the requirements of Section 10631.5.
 - (2) The department shall distribute to the panel convened pursuant to Section 10631.7 the results achieved by the implementation of those water demand management measures described in paragraph (1).
 - (3) The department shall make available to the public the standard the department will use to identify exemplary water demand management measures.

10645. Not later than 30 days after filing a copy of its plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.

Chapter 4. Miscellaneous Provisions

10650. Any actions or proceedings to attack, review, set aside, void, or annul the acts or decisions of an urban water supplier on the grounds of noncompliance with this part shall be commenced as follows:

- (a) An action or proceeding alleging failure to adopt a plan shall be commenced within 18 months after that adoption is required by this part.
- (b) Any action or proceeding alleging that a plan, or action taken pursuant to the plan, does not comply with this part shall be commenced within 90 days after filing of the plan or amendment thereto pursuant to Section 10644 or the taking of that action.

10651. In any action or proceeding to attack, review, set aside, void, or annul a plan, or an action taken pursuant to the plan by an urban water supplier on the grounds of noncompliance with this part, the inquiry shall extend only to whether there was a prejudicial abuse of discretion. Abuse of discretion is established if the supplier has not proceeded in a manner required by law or if the action by the water supplier is not supported by substantial evidence.

10652. The California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) does not apply to the preparation and adoption of plans pursuant to this part or to the implementation of actions taken pursuant to Section 10632. Nothing in this part shall be interpreted as exempting from the California Environmental Quality Act any project that would significantly affect water supplies for fish and wildlife, or any project for implementation of the plan, other than projects implementing Section 10632, or any project for expanded or additional water supplies.

10653. The adoption of a plan shall satisfy any requirements of state law, regulation, or order, including those of the State Water Resources Control Board and the Public Utilities Commission, for the preparation of water management plans or conservation plans; provided, that if the State Water Resources Control Board or the Public Utilities Commission requires additional information concerning water conservation to implement its existing authority, nothing in this part shall be deemed to limit the board or the commission in obtaining that information. The requirements of this part shall be satisfied by any urban water demand management plan prepared to meet federal laws or regulations after the effective date of this part, and which substantially meets the requirements of this part, or by any existing urban water management plan which includes the contents of a plan required under this part.

10654. An urban water supplier may recover in its rates the costs incurred in preparing its plan and implementing the reasonable water conservation measures included in the plan. Any best water management practice that is included in the plan that is identified in the "Memorandum of Understanding Regarding Urban Water Conservation in California" is deemed to be reasonable for the purposes of this section.

10655. If any provision of this part or the application thereof to any person or circumstances is held invalid, that invalidity shall not affect other provisions or

applications of this part which can be given effect without the invalid provision or application thereof, and to this end the provisions of this part are severable.

10656. An urban water supplier that does not prepare, adopt, and submit its urban water management plan to the department in accordance with this part, is ineligible to receive funding pursuant to Division 24 (commencing with Section 78500) or Division 26 (commencing with Section 79000), or receive drought assistance from the state until the urban water management plan is submitted pursuant to this article.

Section L: California Water Code, Division 6, Part 2.55: Water Conservation

The following sections of California Water Code Division 6, Part 2.55, are available online at <http://www.leginfo.ca.gov/calaw.html>.

Chapter 1. General Declarations and Policy	§10608-10608.8
Chapter 2. Definitions	§10608.12
Chapter 3. Urban Retail Water Suppliers	§10608.16-10608.44

Legislative Counsel's Digest

Senate Bill No. 7

Chapter 4

An act to amend and repeal Section 10631.5 of, to add Part 2.55 (commencing with Section 10608) to Division 6 of, and to repeal and add Part 2.8 (commencing with Section 10800) of Division 6 of, the Water Code, relating to water.

[Approved by Governor November 10, 2009. Filed with Secretary of State November 10, 2009.]

Legislative Counsel's Digest

SB 7, Steinberg. Water conservation.

(1) Existing law requires the Department of Water Resources to convene an independent technical panel to provide information to the department and the Legislature on new demand management measures, technologies, and approaches. "Demand management measures" means those water conservation measures, programs, and incentives that prevent the waste of water and promote the reasonable and efficient use and reuse of available supplies.

This bill would require the state to achieve a 20% reduction in urban per capita water use in California by December 31, 2020. The state would be required to make incremental progress towards this goal by reducing per capita water use by at least 10% on or before December 31, 2015. The bill would require each urban retail water supplier to develop urban water use targets and an interim urban water use target, in accordance with specified requirements. The bill would require agricultural water suppliers to implement efficient water management practices. The bill would require the department, in consultation with other state agencies, to develop a single standardized water use reporting form. The bill, with certain exceptions, would provide that urban retail water suppliers, on and after July 1, 2016, and agricultural water suppliers, on and after July 1, 2013, are not eligible for state water grants or loans unless they comply with the water conservation requirements established by the bill. The bill would repeal, on July 1, 2016, an existing requirement that conditions

eligibility for certain water management grants or loans to an urban water supplier on the implementation of certain water demand management measures.

(2) Existing law, until January 1, 1993, and thereafter only as specified, requires certain agricultural water suppliers to prepare and adopt water management plans.

This bill would revise existing law relating to agricultural water management planning to require agricultural water suppliers to prepare and adopt agricultural water management plans with specified components on or before December 31, 2012, and update those plans on or before December 31, 2015, and on or before December 31 every 5 years thereafter. An agricultural water supplier that becomes an agricultural water supplier after December 31, 2012, would be required to prepare and adopt an agricultural water management plan within one year after becoming an agricultural water supplier. The agricultural water supplier would be required to notify each city or county within which the supplier provides water supplies with regard to the preparation or review of the plan. The bill would require the agricultural water supplier to submit copies of the plan to the department and other specified entities. The bill would provide that an agricultural water supplier is not eligible for state water grants or loans unless the supplier complies with the water management planning requirements established by the bill.

(3) The bill would take effect only if SB 1 and SB 6 of the 2009–10 7th Extraordinary Session of the Legislature are enacted and become effective.

The people of the State of California do enact as follows:

SECTION 1. Part 2.55 (commencing with Section 10608) is added to Division 6 of the Water Code, to read:

Part 2.55. Sustainable Water Use and Demand Reduction

Chapter 1. General Declarations and Policy

10608. The Legislature finds and declares all of the following:

- (a) Water is a public resource that the California Constitution protects against waste and unreasonable use.
- (b) Growing population, climate change, and the need to protect and grow California's economy while protecting and restoring our fish and wildlife habitats make it essential that the state manage its water resources as efficiently as possible.
- (c) Diverse regional water supply portfolios will increase water supply reliability and reduce dependence on the Delta.

- (d) Reduced water use through conservation provides significant energy and environmental benefits, and can help protect water quality, improve streamflows, and reduce greenhouse gas emissions.
- (e) The success of state and local water conservation programs to increase efficiency of water use is best determined on the basis of measurable outcomes related to water use or efficiency.
- (f) Improvements in technology and management practices offer the potential for increasing water efficiency in California over time, providing an essential water management tool to meet the need for water for urban, agricultural, and environmental uses.
- (g) The Governor has called for a 20 percent per capita reduction in urban water use statewide by 2020.
- (h) The factors used to formulate water use efficiency targets can vary significantly from location to location based on factors including weather, patterns of urban and suburban development, and past efforts to enhance water use efficiency.
- (i) Per capita water use is a valid measure of a water provider's efforts to reduce urban water use within its service area. However, per capita water use is less useful for measuring relative water use efficiency between different water providers. Differences in weather, historical patterns of urban and suburban development, and density of housing in a particular location need to be considered when assessing per capita water use as a measure of efficiency.

10608.4. It is the intent of the Legislature, by the enactment of this part, to do all of the following:

- (a) Require all water suppliers to increase the efficiency of use of this essential resource.
- (b) Establish a framework to meet the state targets for urban water conservation identified in this part and called for by the Governor.
- (c) Measure increased efficiency of urban water use on a per capita basis.
- (d) Establish a method or methods for urban retail water suppliers to determine targets for achieving increased water use efficiency by the year 2020, in accordance with the Governor's goal of a 20-percent reduction.
- (e) Establish consistent water use efficiency planning and implementation standards for urban water suppliers and agricultural water suppliers.

- (f) Promote urban water conservation standards that are consistent with the California Urban Water Conservation Council's adopted best management practices and the requirements for demand management in Section 10631.
- (g) Establish standards that recognize and provide credit to water suppliers that made substantial capital investments in urban water conservation since the drought of the early 1990s.
- (h) Recognize and account for the investment of urban retail water suppliers in providing recycled water for beneficial uses.
- (i) Require implementation of specified efficient water management practices for agricultural water suppliers.
- (j) Support the economic productivity of California's agricultural, commercial, and industrial sectors.
- (k) Advance regional water resources management.

10608.8.

- (a) (1) Water use efficiency measures adopted and implemented pursuant to this part or Part 2.8 (commencing with Section 10800) are water conservation measures subject to the protections provided under Section 1011.
- (2) Because an urban agency is not required to meet its urban water use target until 2020 pursuant to subdivision (b) of Section 10608.24, an urban retail water supplier's failure to meet those targets shall not establish a violation of law for purposes of any state administrative or judicial proceeding prior to January 1, 2021. Nothing in this paragraph limits the use of data reported to the department or the board in litigation or an administrative proceeding. This paragraph shall become inoperative on January 1, 2021.
- (3) To the extent feasible, the department and the board shall provide for the use of water conservation reports required under this part to meet the requirements of Section 1011 for water conservation reporting.
- (b) This part does not limit or otherwise affect the application of Chapter 3.5 (commencing with Section 11340), Chapter 4 (commencing with Section 11370), Chapter 4.5 (commencing with Section 11400), and Chapter 5 (commencing with Section 11500) of Part 1 of Division 3 of Title 2 of the Government Code.
- (c) This part does not require a reduction in the total water used in the agricultural or urban sectors, because other factors, including, but not limited to, changes in agricultural economics or population growth may have greater effects on water

use. This part does not limit the economic productivity of California's agricultural, commercial, or industrial sectors.

- (d) The requirements of this part do not apply to an agricultural water supplier that is a party to the Quantification Settlement Agreement, as defined in subdivision (a) of Section 1 of Chapter 617 of the Statutes of 2002, during the period within which the Quantification Settlement Agreement remains in effect. After the expiration of the Quantification Settlement Agreement, to the extent conservation water projects implemented as part of the Quantification Settlement Agreement remain in effect, the conserved water created as part of those projects shall be credited against the obligations of the agricultural water supplier pursuant to this part.

Chapter 2. Definitions

10608.12. Unless the context otherwise requires, the following definitions govern the construction of this part:

- (a) “Agricultural water supplier” means a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding recycled water. “Agricultural water supplier” includes a supplier or contractor for water, regardless of the basis of right, that distributes or sells water for ultimate resale to customers. “Agricultural water supplier” does not include the department.
- (b) “Base daily per capita water use” means any of the following:
 - (1) The urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.
 - (2) For an urban retail water supplier that meets at least 10 percent of its 2008 measured retail water demand through recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier, the urban retail water supplier may extend the calculation described in paragraph (1) up to an additional five years to a maximum of a continuous 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.
 - (3) For the purposes of Section 10608.22, the urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010.

- (c) “Baseline commercial, industrial, and institutional water use” means an urban retail water supplier's base daily per capita water use for commercial, industrial, and institutional users.
- (d) “Commercial water user” means a water user that provides or distributes a product or service.
- (e) “Compliance daily per capita water use” means the gross water use during the final year of the reporting period, reported in gallons per capita per day.
- (f) “Disadvantaged community” means a community with an annual median household income that is less than 80 percent of the statewide annual median household income.
- (g) “Gross water use” means the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier, excluding all of the following:
 - (1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier.
 - (2) The net volume of water that the urban retail water supplier places into long-term storage.
 - (3) The volume of water the urban retail water supplier conveys for use by another urban water supplier.
 - (4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24.
- (h) “Industrial water user” means a water user that is primarily a manufacturer or processor of materials as defined by the North American Industry Classification System code sectors 31 to 33, inclusive, or an entity that is a water user primarily engaged in research and development.
- (i) “Institutional water user” means a water user dedicated to public service. This type of user includes, among other users, higher education institutions, schools, courts, churches, hospitals, government facilities, and nonprofit research institutions.
- (j) “Interim urban water use target” means the midpoint between the urban retail water supplier's base daily per capita water use and the urban retail water supplier's urban water use target for 2020.

- (k) “Locally cost effective” means that the present value of the local benefits of implementing an agricultural efficiency water management practice is greater than or equal to the present value of the local cost of implementing that measure.
- (l) “Process water” means water used for producing a product or product content or water used for research and development, including, but not limited to, continuous manufacturing processes, water used for testing and maintaining equipment used in producing a product or product content, and water used in combined heat and power facilities used in producing a product or product content. Process water does not mean incidental water uses not related to the production of a product or product content, including, but not limited to, water used for restrooms, landscaping, air conditioning, heating, kitchens, and laundry.
- (m) “Recycled water” means recycled water, as defined in subdivision (n) of Section 13050, that is used to offset potable demand, including recycled water supplied for direct use and indirect potable reuse, that meets the following requirements, where applicable:
 - (1) For groundwater recharge, including recharge through spreading basins, water supplies that are all of the following:
 - (A) Metered.
 - (B) Developed through planned investment by the urban water supplier or a wastewater treatment agency.
 - (C) Treated to a minimum tertiary level.
 - (D) Delivered within the service area of an urban retail water supplier or its urban wholesale water supplier that helps an urban retail water supplier meet its urban water use target.
 - (2) For reservoir augmentation, water supplies that meet the criteria of paragraph (1) and are conveyed through a distribution system constructed specifically for recycled water.
- (n) “Regional water resources management” means sources of supply resulting from watershed-based planning for sustainable local water reliability or any of the following alternative sources of water:
 - (1) The capture and reuse of stormwater or rainwater.
 - (2) The use of recycled water.
 - (3) The desalination of brackish groundwater.

- (4) The conjunctive use of surface water and groundwater in a manner that is consistent with the safe yield of the groundwater basin.
- (o) “Reporting period” means the years for which an urban retail water supplier reports compliance with the urban water use targets.
- (p) “Urban retail water supplier” means a water supplier, either publicly or privately owned, that directly provides potable municipal water to more than 3,000 end users or that supplies more than 3,000 acre-feet of potable water annually at retail for municipal purposes.
- (q) “Urban water use target” means the urban retail water supplier’s targeted future daily per capita water use.
- (r) “Urban wholesale water supplier,” means a water supplier, either publicly or privately owned, that provides more than 3,000 acre-feet of water annually at wholesale for potable municipal purposes.

Chapter 3. Urban Retail Water Suppliers

10608.16.

- (a) The state shall achieve a 20-percent reduction in urban per capita water use in California on or before December 31, 2020.
- (b) The state shall make incremental progress towards the state target specified in subdivision (a) by reducing urban per capita water use by at least 10 percent on or before December 31, 2015.

10608.20.

- (a) (1) Each urban retail water supplier shall develop urban water use targets and an interim urban water use target by July 1, 2011. Urban retail water suppliers may elect to determine and report progress toward achieving these targets on an individual or regional basis, as provided in subdivision (a) of Section 10608.28, and may determine the targets on a fiscal year or calendar year basis.
- (2) It is the intent of the Legislature that the urban water use targets described in subdivision (a) cumulatively result in a 20-percent reduction from the baseline daily per capita water use by December 31, 2020.
- (b) An urban retail water supplier shall adopt one of the following methods for determining its urban water use target pursuant to subdivision (a):
 - (1) Eighty percent of the urban retail water supplier’s baseline per capita daily water use.

- (2) The per capita daily water use that is estimated using the sum of the following performance standards:
 - (A) For indoor residential water use, 55 gallons per capita daily water use as a provisional standard. Upon completion of the department's 2016 report to the Legislature pursuant to Section 10608.42, this standard may be adjusted by the Legislature by statute.
 - (B) For landscape irrigated through dedicated or residential meters or connections, water efficiency equivalent to the standards of the Model Water Efficient Landscape Ordinance set forth in Chapter 2.7 (commencing with Section 490) of Division 2 of Title 23 of the California Code of Regulations, as in effect the later of the year of the landscape's installation or 1992. An urban retail water supplier using the approach specified in this subparagraph shall use satellite imagery, site visits, or other best available technology to develop an accurate estimate of landscaped areas.
 - (C) For commercial, industrial, and institutional uses, a 10-percent reduction in water use from the baseline commercial, industrial, and institutional water use by 2020.
- (3) Ninety-five percent of the applicable state hydrologic region target, as set forth in the state's draft 20x2020 Water Conservation Plan (dated April 30, 2009). If the service area of an urban water supplier includes more than one hydrologic region, the supplier shall apportion its service area to each region based on population or area.
- (4) A method that shall be identified and developed by the department, through a public process, and reported to the Legislature no later than December 31, 2010. The method developed by the department shall identify per capita targets that cumulatively result in a statewide 20-percent reduction in urban daily per capita water use by December 31, 2020. In developing urban daily per capita water use targets, the department shall do all of the following:
 - (A) Consider climatic differences within the state.
 - (B) Consider population density differences within the state.
 - (C) Provide flexibility to communities and regions in meeting the targets.
 - (D) Consider different levels of per capita water use according to plant water needs in different regions.
 - (E) Consider different levels of commercial, industrial, and institutional water use in different regions of the state.

- (F) Avoid placing an undue hardship on communities that have implemented conservation measures or taken actions to keep per capita water use low.
- (c) If the department adopts a regulation pursuant to paragraph (4) of subdivision (b) that results in a requirement that an urban retail water supplier achieve a reduction in daily per capita water use that is greater than 20 percent by December 31, 2020, an urban retail water supplier that adopted the method described in paragraph (4) of subdivision (b) may limit its urban water use target to a reduction of not more than 20 percent by December 31, 2020, by adopting the method described in paragraph (1) of subdivision (b).
- (d) The department shall update the method described in paragraph (4) of subdivision (b) and report to the Legislature by December 31, 2014. An urban retail water supplier that adopted the method described in paragraph (4) of subdivision (b) may adopt a new urban daily per capita water use target pursuant to this updated method.
- (e) An urban retail water supplier shall include in its urban water management plan required pursuant to Part 2.6 (commencing with Section 10610) due in 2010 the baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.
- (f) When calculating per capita values for the purposes of this chapter, an urban retail water supplier shall determine population using federal, state, and local population reports and projections.
- (g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).
- (h) (1) The department, through a public process and in consultation with the California Urban Water Conservation Council, shall develop technical methodologies and criteria for the consistent implementation of this part, including, but not limited to, both of the following:
 - (A) Methodologies for calculating base daily per capita water use, baseline commercial, industrial, and institutional water use, compliance daily per capita water use, gross water use, service area population, indoor residential water use, and landscaped area water use.
 - (B) Criteria for adjustments pursuant to subdivisions (d) and (e) of Section 10608.24.
- (2) The department shall post the methodologies and criteria developed pursuant to this subdivision on its Internet Web site, and make written copies

available, by October 1, 2010. An urban retail water supplier shall use the methods developed by the department in compliance with this part.

- (i) (1) The department shall adopt regulations for implementation of the provisions relating to process water in accordance with subdivision (l) of Section 10608.12, subdivision (e) of Section 10608.24, and subdivision (d) of Section 10608.26.
- (2) The initial adoption of a regulation authorized by this subdivision is deemed to address an emergency, for purposes of Sections 11346.1 and 11349.6 of the Government Code, and the department is hereby exempted for that purpose from the requirements of subdivision (b) of Section 11346.1 of the Government Code. After the initial adoption of an emergency regulation pursuant to this subdivision, the department shall not request approval from the Office of Administrative Law to readopt the regulation as an emergency regulation pursuant to Section 11346.1 of the Government Code.
- (j) An urban retail water supplier shall be granted an extension to July 1, 2011, for adoption of an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) due in 2010 to allow use of technical methodologies developed by the department pursuant to paragraph (4) of subdivision (b) and subdivision (h). An urban retail water supplier that adopts an urban water management plan due in 2010 that does not use the methodologies developed by the department pursuant to subdivision (h) shall amend the plan by July 1, 2011, to comply with this part.

10608.22. Notwithstanding the method adopted by an urban retail water supplier pursuant to Section 10608.20, an urban retail water supplier's per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use as defined in paragraph (3) of subdivision (b) of Section 10608.12. This section does not apply to an urban retail water supplier with a base daily per capita water use at or below 100 gallons per capita per day.

10608.24.

- (a) Each urban retail water supplier shall meet its interim urban water use target by December 31, 2015.
- (b) Each urban retail water supplier shall meet its urban water use target by December 31, 2020.
- (c) An urban retail water supplier's compliance daily per capita water use shall be the measure of progress toward achievement of its urban water use target.
- (d) (1) When determining compliance daily per capita water use, an urban retail water supplier may consider the following factors:

- (A) Differences in evapotranspiration and rainfall in the baseline period compared to the compliance reporting period.
 - (B) Substantial changes to commercial or industrial water use resulting from increased business output and economic development that have occurred during the reporting period.
 - (C) Substantial changes to institutional water use resulting from fire suppression services or other extraordinary events, or from new or expanded operations, that have occurred during the reporting period.
- (2) If the urban retail water supplier elects to adjust its estimate of compliance daily per capita water use due to one or more of the factors described in paragraph (1), it shall provide the basis for, and data supporting, the adjustment in the report required by Section 10608.40.
- (e) When developing the urban water use target pursuant to Section 10608.20, an urban retail water supplier that has a substantial percentage of industrial water use in its service area, may exclude process water from the calculation of gross water use to avoid a disproportionate burden on another customer sector.
- (f) (1) An urban retail water supplier that includes agricultural water use in an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) may include the agricultural water use in determining gross water use. An urban retail water supplier that includes agricultural water use in determining gross water use and develops its urban water use target pursuant to paragraph (2) of subdivision (b) of Section 10608.20 shall use a water efficient standard for agricultural irrigation of 100 percent of reference evapotranspiration multiplied by the crop coefficient for irrigated acres.
- (2) An urban retail water supplier, that is also an agricultural water supplier, is not subject to the requirements of Chapter 4 (commencing with Section 10608.48), if the agricultural water use is incorporated into its urban water use target pursuant to paragraph (1).

10608.26.

- (a) In complying with this part, an urban retail water supplier shall conduct at least one public hearing to accomplish all of the following:
- (1) Allow community input regarding the urban retail water supplier's implementation plan for complying with this part.
 - (2) Consider the economic impacts of the urban retail water supplier's implementation plan for complying with this part.

- (3) Adopt a method, pursuant to subdivision (b) of Section 10608.20, for determining its urban water use target.
- (b) In complying with this part, an urban retail water supplier may meet its urban water use target through efficiency improvements in any combination among its customer sectors. An urban retail water supplier shall avoid placing a disproportionate burden on any customer sector.
- (c) For an urban retail water supplier that supplies water to a United States Department of Defense military installation, the urban retail water supplier's implementation plan for complying with this part shall consider the United States Department of Defense military installation's requirements under federal Executive Order 13423.
- (d) (1) Any ordinance or resolution adopted by an urban retail water supplier after the effective date of this section shall not require existing customers as of the effective date of this section, to undertake changes in product formulation, operations, or equipment that would reduce process water use, but may provide technical assistance and financial incentives to those customers to implement efficiency measures for process water. This section shall not limit an ordinance or resolution adopted pursuant to a declaration of drought emergency by an urban retail water supplier.
- (2) This part shall not be construed or enforced so as to interfere with the requirements of Chapter 4 (commencing with Section 113980) to Chapter 13 (commencing with Section 114380), inclusive, of Part 7 of Division 104 of the Health and Safety Code, or any requirement or standard for the protection of public health, public safety, or worker safety established by federal, state, or local government or recommended by recognized standard setting organizations or trade associations.

10608.28.

- (a) An urban retail water supplier may meet its urban water use target within its retail service area, or through mutual agreement, by any of the following:
 - (1) Through an urban wholesale water supplier.
 - (2) Through a regional agency authorized to plan and implement water conservation, including, but not limited to, an agency established under the Bay Area Water Supply and Conservation Agency Act (Division 31 (commencing with Section 81300)).
 - (3) Through a regional water management group as defined in Section 10537.
 - (4) By an integrated regional water management funding area.

- (5) By hydrologic region.
- (6) Through other appropriate geographic scales for which computation methods have been developed by the department.
- (b) A regional water management group, with the written consent of its member agencies, may undertake any or all planning, reporting, and implementation functions under this chapter for the member agencies that consent to those activities. Any data or reports shall provide information both for the regional water management group and separately for each consenting urban retail water supplier and urban wholesale water supplier.

10608.32. All costs incurred pursuant to this part by a water utility regulated by the Public Utilities Commission may be recoverable in rates subject to review and approval by the Public Utilities Commission, and may be recorded in a memorandum account and reviewed for reasonableness by the Public Utilities Commission.

10608.36. Urban wholesale water suppliers shall include in the urban water management plans required pursuant to Part 2.6 (commencing with Section 10610) an assessment of their present and proposed future measures, programs, and policies to help achieve the water use reductions required by this part.

10608.40. Urban water retail suppliers shall report to the department on their progress in meeting their urban water use targets as part of their urban water management plans submitted pursuant to Section 10631. The data shall be reported using a standardized form developed pursuant to Section 10608.52.

10608.42. The department shall review the 2015 urban water management plans and report to the Legislature by December 31, 2016, on progress towards achieving a 20-percent reduction in urban water use by December 31, 2020. The report shall include recommendations on changes to water efficiency standards or urban water use targets in order to achieve the 20-percent reduction and to reflect updated efficiency information and technology changes.

10608.43. The department, in conjunction with the California Urban Water Conservation Council, by April 1, 2010, shall convene a representative task force consisting of academic experts, urban retail water suppliers, environmental organizations, commercial water users, industrial water users, and institutional water users to develop alternative best management practices for commercial, industrial, and institutional users and an assessment of the potential statewide water use efficiency improvement in the commercial, industrial, and institutional sectors that would result from implementation of these best management practices. The taskforce, in conjunction with the department, shall submit a report to the Legislature by April 1, 2012, that shall include a review of multiple sectors within commercial, industrial, and institutional users and that shall recommend water use efficiency standards for

commercial, industrial, and institutional users among various sectors of water use. The report shall include, but not be limited to, the following:

- (a) Appropriate metrics for evaluating commercial, industrial, and institutional water use.
- (b) Evaluation of water demands for manufacturing processes, goods, and cooling.
- (c) Evaluation of public infrastructure necessary for delivery of recycled water to the commercial, industrial, and institutional sectors.
- (d) Evaluation of institutional and economic barriers to increased recycled water use within the commercial, industrial, and institutional sectors.
- (e) Identification of technical feasibility and cost of the best management practices to achieve more efficient water use statewide in the commercial, industrial, and institutional sectors that is consistent with the public interest and reflects past investments in water use efficiency.

10608.44. Each state agency shall reduce water use on facilities it operates to support urban retail water suppliers in meeting the target identified in Section 10608.16.

Appendix B

Central Basin Judgment

1 LAGERLOF, SENEAL, DRESCHER & SWIFT
2 301 North Lake Avenue, 10th Floor
3 Pasadena, California 91101
4 (818) 793-9400 or (213) 385-4345
5
6
7

8 SUPERIOR COURT OF THE STATE OF CALIFORNIA
9 FOR THE COUNTY OF LOS ANGELES
10

11	CENTRAL AND WEST BASIN WATER)	No. 786,656
12	REPLENISHMENT DISTRICT, etc.,)	<u>SECOND AMENDED</u>
)	<u>JUDGMENT</u>
13	Plaintiff,)	
	v.)	(Declaring and establishing
14)	water rights in Central Basin
)	and enjoining extractions
15	CHARLES E. ADAMS, et al.,)	therefrom in excess of
)	specified quantities.)
16	Defendants.)	
17	<hr/> CITY OF LAKEWOOD, a municipal)	
18	corporation,)	
)	
	Cross-Complainant,)	
19	v.)	
)	
20	CHARLES E. ADAMS, et al.,)	
)	
21	Cross-Defendants.)	
22	<hr/>)	

23 The above-entitled matter duly and regularly came on
24 for trial in Department 73 of the above-entitled Court (having
25 been transferred thereto from Department 75 by order of the
26 presiding Judge), before the Honorable Edmund M. Moor, specially
27 assigned Judge, on May 17, 1965, at 10:00 a.m. Plaintiff was
28 represented by its attorneys BEWLEY, KNOOP, LASSLEBEN & WHELAN,

1 MARTIN E. WHELAN, JR., and EDWIN H. VAIL, JR., and cross-
2 complainant was represented by its attorney JOHN S. TODD.
3 Various defendants and cross-defendants were also represented at
4 the trial. Evidence both oral and documentary was introduced.
5 The trial continued from day to day on May 17, 18, 19, 20, 21 and
6 24, 1965, at which time it was continued by order of Court for
7 further trial on August 25, 1965, at 10:00 a.m. in Department 73
8 of the above-entitled Court; whereupon, having then been
9 transferred to Department 74, trial was resumed in Department 74
10 on August 25, 1965, and then continued to August 27, 1965 at
11 10:00 a.m. in the same Department. On the latter date, trial was
12 concluded and the matter submitted. Findings of fact and conclu-
13 sions of law have heretofore been signed and filed. Pursuant to
14 the reserved and continuing jurisdiction of the court under the
15 judgment herein, certain amendments to said judgment and
16 temporary orders have heretofore been made and entered.
17 Continuing jurisdiction of the court for this action is currently
18 assigned to HON. FLORENCE T. PICKARD. Motion of Plaintiff herein
19 for further amendments to the judgment, notice thereof and of the
20 hearing thereon having been duly and regularly given to all
21 parties, came on for hearing in Department 38 of the above-
22 entitled court on MAY 6, 1991 at 8:45 a.m. before said HONORABLE
23 PICKARD. Plaintiff was represented by its attorneys LAGERLOF,
24 SENEAL, DRESCHER & SWIFT, by William F. Kruse. Various
25 defendants were represented by counsel of record appearing on the
26 Clerk's records. Hearing thereon was concluded on that date.
27 The within "Second Amended Judgment" incorporates amendments and
28 orders heretofore made to the extent presently operable and

1 amendments pursuant to said last mentioned motion. To the extent
2 this Amended Judgment is a restatement of the judgment as
3 heretofore amended, it is for convenience in incorporating all
4 matters in one document, is not a readjudication of such matters
5 and is not intended to reopen any such matters. As used
6 hereinafter the word "judgment" shall include the original
7 judgment as amended to date. In connection with the following
8 judgment, the following terms, words, phrases and clauses are
9 used by the Court with the following meanings:

10 "Administrative Year" means the water year until
11 operation under the judgment is converted to a fiscal year
12 pursuant to Paragraph 4, Part I, p. 53 hereof, whereupon it
13 shall mean a fiscal year, including the initial 'short fiscal
14 year' therein provided.

15 "Allowed Pumping Allocation" is that quantity in acre
16 feet which the Court adjudges to be the maximum quantity which a
17 party should be allowed to extract annually from Central Basin as
18 set forth in Part I hereof, which constitutes 80% of such party's
19 Total Water Right.

20 "Allowed Pumping Allocation for a particular Administra-
21 tive year" and "Allowed Pumping Allocation in the following
22 Administrative year" and similar clauses, mean the Allowed
23 Pumping Allocation as increased in a particular Administrative
24 year by any authorized carryovers pursuant to Part III, Subpart A
25 of this judgment and as reduced by reason of any over-extractions
26 in a previous Administrative year.

27 "Artificial Replenishment" is the replenishment of Central
28 Basin achieved through the spreading of imported or reclaimed

1 water for percolation thereof into Central Basin by a govern-
2 mental agency.

3 "Base Water Right" is the highest continuous extractions of
4 water by a party from Central Basin for a beneficial use in any
5 period of five consecutive years after the commencement of over-
6 draft in Central Basin and prior to the commencement of this
7 action, as to which there has been no cessation of use by that
8 party during any subsequent period of five consecutive years. As
9 employed in the above definition, the words "extractions of water
10 by a party" and "cessation of use by that party" include such
11 extractions and cessations by any predecessor or predecessors in
12 interest.

13 "Calendar Year" is the twelve month period commencing
14 January 1 of each year and ending December 31 of each year.

15 "Central Basin" is the underground water basin or reservoir
16 underlying Central Basin Area, the exterior boundaries of which
17 Central Basin are the same as the exterior boundaries of Central
18 Basin Area.

19 "Central Basin Area" is the territory described in Appendix
20 "1" to this judgment, and is a segment of the territory
21 comprising Plaintiff District.

22 "Declared water emergency" shall mean a period commencing
23 with the adoption of a resolution of the Board of Directors of
24 the Central and West Basin Water Replenishment District declaring
25 that conditions within the Central Basin relating to natural and
26 imported supplies of water are such that, without implementation
27 of the water emergency provisions of this Judgment, the water
28 resources of the Central Basin risk degradation. In making such

1 declaration, the Board of Directors shall consider any
2 information and requests provided by water producers, purveyors
3 and other affected entities and may, for that purpose, hold a
4 public hearing in advance of such declaration. A Declared Water
5 Emergency shall extend for one (1) year following such
6 resolution, unless sooner ended by similar resolution.

7 "Extraction", "extractions", "extracting", "extracted", and
8 other variations of the same noun and verb, mean pumping, taking,
9 diverting or withdrawing ground water by any manner or means
10 whatsoever from Central Basin.

11 "Fiscal Year" is the twelve (12) month period July 1 through
12 June 30 following.

13 "Imported Water" means water brought into Central Basin Area
14 from a non-tributary source by a party and any predecessors in
15 interest, either through purchase directly from The Metropolitan
16 Water District of Southern California or by direct purchase from
17 a member agency thereof, and additionally as to the Department of
18 Water and Power of the City of Los Angeles, water brought into
19 Central Basin Area by that party by means of the Owens River
20 Aqueduct.

21 "Imported Water Use Credit" is the annual amount, computed
22 on a calendar year basis, of imported water which any party and
23 any predecessors in interest, who have timely made the required
24 filings under Water Code Section 1005.1, have imported into
25 Central Basin Area in any calendar year and subsequent to July 9,
26 1951, for beneficial use therein, but not exceeding the amount by
27 which that party and any predecessors in interest reduces his or
28 their extractions of ground water from Central Basin in that

1 calendar year from the level of his or their extractions in the
2 preceding calendar year, or in any prior calendar year not
3 earlier than the calendar year 1950, whichever is the greater.

4 "Natural Replenishment" means and includes all processes
5 other than "Artificial Replenishment" by which water may become a
6 part of the ground water supply of Central Basin.

7 "Natural Safe Yield" is the maximum quantity of ground
8 water, not in excess of the long term average annual quantity of
9 Natural Replenishment, which may be extracted annually from
10 Central Basin without eventual depletion thereof or without
11 otherwise causing eventual permanent damage to Central Basin as a
12 source of ground water for beneficial use, said maximum quantity
13 being determined without reference to Artificial Replenishment.

14 "Overdraft" is that condition of a ground water basin
15 resulting from extractions in any given annual period or periods
16 in excess of the long term average annual quantity of Natural
17 Replenishment, or in excess of that quantity which may be
18 extracted annually without otherwise causing eventual permanent
19 damage to the basin.

20 "Party" means a party to this action. Whenever the
21 term "party" is used in connection with a quantitative water
22 right, or any quantitative right, privilege or obligation, or in
23 connection with the assessment for the budget of the Watermaster,
24 it shall be deemed to refer collectively to those parties to whom
25 are attributed a Total Water Right in Part I of this judgment.

26 "Person" or "persons" include individuals, partner-
27 ships, associations, governmental agencies and corporations, and
28 any and all types of entities.

1 "Total Water Right" is the quantity arrived at in the
2 same manner as in the computation of "Base Water Right", but
3 including as if extracted in any particular year the Imported
4 Water Use Credit, if any, to which a particular party may be
5 entitled.

6 "Water" includes only non-saline water, which is that
7 having less than 1,000 parts of chlorides to 1,000,000 parts of
8 water.

9 "Water Year" is the 12-month period commencing Octo-
10 ber 1 of each year and ending September 30th of the following
11 year.

12 In those instances where any of the above-defined
13 words, terms, phrases or clauses are utilized in the definition
14 of any of the other above-defined words, terms, phrases and
15 clauses, such use is with the same meaning as is above set forth.

16
17 NOW THEREFORE, IT IS ORDERED, DECLARED, ADJUDGED AND
18 DECREED WITH RESPECT TO THE ACTION AND CROSS-ACTION AS FOLLOWS:

19 I. DECLARATION AND DETERMINATION OF WATER RIGHTS OF
20 PARTIES; RESTRICTION ON THE EXERCISE THEREOF.¹

21 1. Determination of Rights of Parties.

22 (a) Each party, except defendants, The City of Los
23 Angeles and Department of Water and Power of the City of Los
24 Angeles, whose name is hereinafter set forth in the tabulation at
25 the conclusion of Subpart 3 of Part 1, and after whose name there
26

27 ¹Headings in the judgment are for purposes of reference and
28 the language of said headings do not constitute, other than for
such purpose, a portion of this judgment.

1 appears under the column "Total Water Right" a figure other than
2 "0", was the owner of and had the right to extract annually
3 groundwater from Central Basin for beneficial use in the quantity
4 set forth after that party's name under said column "Total Water
5 Right" pursuant to the Judgment as originally entered herein.
6 Attached hereto as Appendix "2" and by this reference made a part
7 hereof as though fully set forth are the water rights of parties
8 and successors in interest as they existed as of the close of the
9 water year ending September 30, 1978 in accordance with the
10 Watermaster Reports on file with this Court and the records of
11 the Plaintiff. This tabulation does not take into account
12 additions or subtractions from any Allowed Pumping Allocation of
13 a producer for the 1978-79 water year, nor other adjustments not
14 representing change in fee title to water rights, such as leases
15 of water rights, nor does it include the names of lessees of
16 landowners where the lessees are exercising the water rights.
17 The exercise of all water rights is subject, however, to the
18 provisions of this Judgment as hereinafter contained. All of
19 said rights are of the same legal force and effect and are
20 without priority with reference to each other. Each party whose
21 name is hereinafter set forth in the tabulation set forth in
22 Appendix "2" of this judgment, and after whose name there appears
23 under the column "Total Water Right" the figure "0" owns no
24 rights to extract any ground water from Central Basin, and has no
25 right to extract any ground water from Central Basin.

26 (b) Defendant The City of Los Angeles is the owner of
27 the right to extract fifteen thousand (15,000) acre feet per
28 annum of ground water from Central Basin. Defendant Department

1 of Water and Power of the City of Los Angeles has no right to
2 extract ground water from Central Basin except insofar as it has
3 the right, power, duty or obligation on behalf of defendant The
4 City of Los Angeles to exercise the water rights in Central Basin
5 of defendant The City of Los Angeles. The exercise of said
6 rights are subject, however, to the provisions of this judgment
7 hereafter contained, including but not limited to, sharing with
8 other parties in any subsequent decreases or increases in the
9 quantity of extractions permitted from Central Basin, pursuant to
10 continuing jurisdiction of the Court, on the basis that fifteen
11 thousand (15,000) acre feet bears to the Allowed Pumping
12 Allocations of the other parties.

13 (c) No party to this action is the owner of or has any
14 right to extract ground water from Central Basin except as herein
15 affirmatively determined.

16 2. Parties Enjoined as Regards Quantities of Extractions.

17 (a) Each party, other than The State of California and The
18 City of Los Angeles and Department of Water and Power of The City
19 of Los Angeles, is enjoined and restrained in any Administrative
20 year commencing after the date this judgment becomes final from
21 extracting from Central Basin any quantity of Water greater than
22 the party's Allowed Pumping Allocation as hereinafter set forth
23 next to the name of the party in the tabulation appearing in
24 Appendix 2 at the end of this Judgment, subject to further
25 provisions of this judgment. Subject to such further provisions,
26 the officials, agents and employees of The State of California
27 are enjoined and restrained in any such Administrative year from
28 extracting from Central Basin collectively any quantity of water

1 greater than the Allowed Pumping Allocation of The State of
2 California as hereinafter set forth next to the name of that
3 party in the same tabulation. Each party adjudged and declared
4 above not to be the owner of and not to have the right to extract
5 ground water from Central Basin is enjoined and restrained in any
6 Administrative year commencing after the date this judgment
7 becomes final from extracting any ground water from Central
8 Basin, except as may be hereinafter permitted to any such party
9 under the Exchange Pool provisions of this judgment.

10 (b) Defendant The City of Los Angeles is enjoined and
11 restrained in any Administrative year commencing after the date
12 this judgment becomes final from extracting from Central Basin
13 any quantity of water greater than fifteen thousand (15,000) acre
14 feet, subject to further provisions of this judgment, including
15 but not limited to, sharing with other parties in any subsequent
16 decreases or increases in the quantity of extractions permitted
17 from Central Basin by parties, pursuant to continuing
18 jurisdiction of the Court, on the basis that fifteen thousand
19 (15,000) acre feet bears to the Allowed Pumping Allocations of
20 the other parties. Defendant Department of Water and Power of
21 The City of Los Angeles is enjoined and restrained in any
22 Administrative year commencing after the date this judgment
23 becomes final from extracting from Central Basin any quantity of
24 water other than such as it may extract on behalf of defendant
25 The City of Los Angeles, and which extractions, along with any
26 extractions by said City, shall not exceed that quantity
27 permitted by this judgment to that City in any Administrative
28 year. Whenever in this judgment the term "Allowed Pumping

Allocation" appears, it shall be deemed to mean as to defendant
The City of Los Angeles the quantity of fifteen thousand (15,000)
acre feet.

<u>Name</u> ²	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
J. P. Abbott, Inc.	21	17
Charles E. Adams (Corty Van Dyke, tenant) (see additional listing below for Charles E. Adams)	8	6
Charles E. Adams and Rhoda E. Adams	5	4
Juan Aguayo and Salome Y. Aguayo	1	1
Aguiar Dairy, Inc.	33	26
Airfloor Company of California, Inc.	1	1
J. N. Albers and Nellie Albers	98	78
Jake J. Alewyn and Mrs. Jake J. Alewyn aka Normalie May Alewyn (see listing under name of Victor E. Gamboni)		
Tom Alger and Hilda Alger	9	7
Clarence M. Alvis and Doris M. Alvis	0	0
American Brake Shoe Company	52	42

²Parties and Rights as originally adjudicated

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	American Pipe and Construction Co.	188	150
4	Anaconda American Brass Company	0	0
5	Gerrit Anker (see listing under name of Agnes De Vries		
6			
7	Archdiocese of Los Angeles Education & Welfare Corporation	8	6
8			
9	George W. Armstrong and Ruth H. Armstrong (Armstrong Poultry Ranch, tenant)	28	22
10	Artesia Cemetery District	30	24
11	Artesia Milling Company (see listing under name of Dick Zuidervaat)		
12			
13	Artesia School District	51	41
14	Arthur Land Co., Inc.	13	10
15	Charles Arzouman and Neuart Arzouman	1	1
16			
17	Associated Southern Investment Company (William R. Morris, George V. Gutierrez and Mrs. Socorro Gutierrez, tenants and licensees)	16	13
18			
19	The Atchison, Topeka and Santa Fe Railway Co.	124	99
20			
21	Atkinson Brick Company	11	9
22	Arthur Atsma (see listing under name of Andrew De Voss)		
23			
24	B.F.S. Mutual Water Company	183	146
25	Henry Baar (see listing under name of Steve Stefani, Sr.)		
26			
27	Vernon E. Bacon (see listing under name of Southern California Edison Company)		
28			

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Adolph Bader and Gesine Bader (Fred Bader, tenant)	14	11
4			
5	K. R. Bailey and Virginia R. Bailey	1	1
6	Dave Bajema (see listing under name of Peter Dotinga)		
7	Donald L. Baker and Patsy Ruth Baker	5	4
8	Allen Bakker	0	0
9	Sam Bangma and Ida Bangma	17	14
10	Bank of America National Trust and Savings Association, as Trustee of Trust created by Will of Tony V. Freitas, Deceased (Frank A. Gonsalves, tenant)	29	23
11			
12	Emma Barbaria, as to undivided 1/2 interest; John Barbaria, Jr. and Lorraine Barbaria as to undivided 1/4 interest; and Frank Barbaria as to undivided 1/4 interest (John Barbaria & Sons Dairy, tenant)	27	22
13			
14			
15	Antonio B. Barcellos and Manuel B. Barcellos	12	10
16	John Barcelos and Guilhermina Barcelos	16	13
17	Sam Bartsma and Birdie Bartsma	34	27
18			
19	Bateson's School of Horticulture, Inc. (see listing under name of John Brown Schools of California, Inc.)		
20			
21	Bechard Mutual Water Corporation	4	4
22	Beck Tract Water Company, Inc.	29	23
23	Iver F. Becklund	1	1
24	Margaret E. Becklund	1	1
25	P. T. Beehly (International Carbonic, Inc., tenant)	1	1
26	Doutzen Bekendam and Hank Bekendam	0	0
27	John Bekendam	0	0
28	Tillie Bekendam	0	0

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Bell Trailer City (see listing under name of Bennett E. Simmons)	1	1
4	E. F. Bellenbaum and Marie P. Bellenbaum	32	26
5	Bellflower Christian School	243	194
6	Bellflower Home Garden Water Company	111	89
7	Bellflower Unified School District	2,109	1,687
8	Bellflower Water Company	11	9
9	Belmont Water Association	0	0
10	Tony Beltman	0	0
11	Berlu Water Company, Inc.	32	26
12	Jack R. Bettencourt and Bella Bettencourt	151	121
13	Bigby Townsite Water Co.		
14	Siegfried Binggeli and Trina L. Binggeli (see listing under name of Paul H. Lussman, Jr.)	0	0
15			
16	Fred H. Bixby Ranch Company		
17			
18	Delbert G. Black and Lennie O. Black as to undivided one-half; and Harley Lee, as to undivided one-half	40	32
19			
20	Bloomfield School District	11	9
21	Adrian Boer and Julia Boer	5	4
22	Gerard Boere and Rosalyn Boer		
23	Henry Boer and Annie Boer (William Offinga & Son, including Sidney Offinga, tenants as to 33 acre feet of water right and 26 acre feet of allowed pumping allocation)	34	27
24		30	24
25	John Boere, Jr. and Mary J. Boere	30	24
26	John Boere, Sr. and Edna Boere (John Boere, Jr., tenant)	30	24
27			
28	John Boere, Jr. (see also listing under name of Leonard A. Grenier)		

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Frank Boersma and Angie Boersma	31	25
4	Gerrit Boersma and Jennie Boersma (George Boersma, tenant)	8	6
5	Jack Boersma	0	0
6	Sam Boersma and Berdina Boersma	42	34
7	Jan Bokma (see listing under name of August Vandenberg)		
8			
9	Jacob Bollema	0	0
10	James C. Boogerd (see listing under name of Jake Van Leeuwen, Jr.)		
11			
12	Bernard William Bootsma, Carrie Agnes Van Dam and Gladys Marie Romberg	12	10
13	Michel Bordato and Anna M. Bordato (Charlie Vander Kooi, tenant)	12	10
14			
15	John Borges and Mary Borges, aka Mrs. John Borges (Manuel B. Ourique, tenant)	14	11
16	Mary Borges, widow of Manuel Borges (Manuel Borges, Jr., tenant)	7	6
17			
18	Gerrit Bos and Margaret Bos	88	70
19	Jacob J. Bosma (see listing under name of Sieger Vierstra)		
20	Peter Bothof	6	5
21	William Bothof and Antonette Bothof	7	6
22	Frank Bouma and Myron D. Kolstad	3	3
23	Ted Bouma and Jeanette Bouma	21	17
24	Sam Bouman (Arie C. Van Leeuwen, tenant)	8	6
25	John Brown Schools of California, Inc. (Bateson's School of Horticulture, Inc., tenant)	2	2
26			
27	M. J. Brown, Jr. and Margaret Brown	0	0
28	Adrian Bulk and Alice Bulk	20	16

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Duke Buma and Martha Buma	8	6
4	Miles A. Burson and Rose Burson	7	6
5	Calavar Corporation (see listing under name of H R M Land Company)		
6			
7	California Cotton Oil Corporation	101	81
8	California Portland Cement Company	0	0
9	California Rendering Company, Ltd.	149	119
10	California Water and Telephone Company	2,584	2,067
11	California Water Service Company (Base Water Right - 13,477)	14, 717	11,774
12	Candlewood Country Club	184	147
13	V. Capovilla and Mary Capovilla	0	0
14	Carmenita School District	9	7
15	Carson Estate Company	139	111
16	Paul Carver	0	0
17	Catalin Corporation of America	13	10
18	Center City Water Co.	86	69
19	Central Manufacturing District, Inc. (Louis Guglielmana and Richard Wigboly, tenants)	825	660
20			
21	Century Center Mutual Water Association	317	254
22	Century City Mutual Water Company, Ltd.	62	50
23	Cerritos Junior College District	119	95
24	Cerritos Park Mutual Water Company	77	62
25	Challenge Cream & Butter Association	146	117
26	Chansall Mutual Water Company	101	81
27	Maynard W. Chapin, as Executor of the Estate of Hugh L. Chapin, deceased	36	29
28			

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Cherryvale Water Users' Association	14	11
4	Shigeru Chikami and Jack Chikami doing		
5	business as Chikami Bros. Farming		
6	(see also listing under name of		
7	Southern California Edison Company)	10	8
8	John Christoffels and Effie Christoffels	14	11
9	Citrus Grove Heights Water Company	277	222
10	City Farms Mutual Water Company No. 1	37	30
11	City Farms Mutual Water Company No. 2	15	12
12	City of Artesia	30	24
13	City of Bellflower	60	48
14	City of Compton	6,511	5,209
15	City of Downey	5,713	4,570
16	City of Huntington Park	4,788	3,830
17	City of Inglewood (Base Water		
18	Right - 629)	1,118	894
19	City of Lakewood	10,631	8,505
20	City of Long Beach (Base Water		
21	Right - 29,876)	33,538	26,830
22	City of Los Angeles (see paragraph 2		
23	above of this Part I for water		
24	rights and restrictions on the		
25	exercise thereof of said defendant.		
26	See also such reference with		
27	respect to Department of Water and		
28	Power of the City of Los Angeles.)		
	City of Lynwood	6,238	4,990
	City of Montebello	260	208
	City of Norwalk	613	490
	City of Santa Fe Springs	505	404
	City of Signal Hill	1,675	1,340

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	City of South Gate	9,942	7,954
4	City of Vernon	9,008	7,206
5	City of Whittier	776	621
6	Allan Clanton and Ina Clanton	80	64
7	Claretian Jr. Seminary (see listing under name of Dominguez Seminary)		
8			
9	Dr. Russell B. Clark (see listing under name of Research Building Corporation)		
10	Jacob Cloo and Grace Cloo	16	13
11	Clougherty Packing Company	80	64
12	Coast Packing Company	426	341
13	Coast Water Company	588	470
14	Joe A. Coelho, Jr. and Isabel Coelho	5	4
15	J. H. Coito, Jr.	0	0
16	John H. Coito and Guilhermina Coito (Zylstra Bros., a partnership consisting of Lammert Zylstra and William Zylstra, tenant)	17	14
17			
18	J. E. Collinsworth	15	12
19			
20	Compton Union High School District	48	38
21	Conservative Water Company (Base Water Right - 4,101)	133	3,306
22	Container Corporation of America	323	1,058
23	Nicholas C. Contoas and P. Basil Lambros (Vehicle Maintenance & Painting Corporation, tenant)	1	1
24			
25	Continental Can Company, Inc.	946	757
26	Contractors Asphalt Products Company, Inc.	16	13
27			
28	R. M. Contreras	8	6

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Copp Equipment Company, Inc. and		
4	Humphries Investments Incorporated	7	6
5	Mary Cordeiro and First Western Bank		
6	& Trust Company, as Trustee pursuant to last will and testament of Tony Cordeiro, deceased	46	37
7	Corporation of the Presiding Bishop of		
8	the Church of Jesus Christ of Latter Day Saints (Ray Mitchell, tenant)	39	31
9	Harry Lee Cotton and Doris L. Cotton	5	4
10	County of Los Angeles	737	590
11	County Water Company	280	224
12	Cowlitz Amusements, Inc. (La Mirada		
13	Drive-In Theater, tenant)	4	4
14	Pete Coy	28	22
15	Crest Holding Corporation	20	16
16	Katherine M. Culbertson	2	2
17	Orlyn L. Culp and Garnetle Culp	21	17
18	Everett Curry and Marguerite Curry	2	2
19	D. V. Dairy (see listing under name of Frank C. Leal)		
20	Dairymen's Fertilizer Co-op, Inc.	1	1
21	Noble G. Daniels (see listing under name of Harold Marcroft)		
22	John A. Davis	0	0
23	Henry De Bie, Jr. and Jessie De Bie	17	14
24	Clifford S. Deeth	0	0
25	Ernest De Groot and Dorothy De Groot	81	65
26	Pete de Groot	15	12
27	Pier De Groot and Fay De Groot	21	17
28			

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Martin De Hoog and Adriana De Hoog	12	10
4	Edward De Jager and Alice De Jager	37	30
5	Cornelius De Jong and Grace De Jong	13	10
6	Jake De Jong and Lena De Jong (Frank A.		
7	Gonsalves, tenant as to 8 acre-feet of water right)	21	17
8	William De Kriek (see listing under name of Gerrit Van Dam)		
9			
10	Del Amo Dairy (see listing under name of Ed Haakma)		
11	Del Amo Estate Company	0	0
12	Joe De Marco and Concetta De Marco	1	1
13	Louis F. De Martini (see listing under name of Southern California		
14	Edison Company)		
15	Mary A. De Mello	16	13
16	John Den Hollander (see listing under name of James Dykstra)		
17			
18	Department of Water and Power of The City of Los Angeles, by reason of		
19	charter provisions, has the manage- ment and control of water rights		
20	owned by the City of Los Angeles (see listing under name of City of Los Angeles)		
21			
22	Ruth E. Dever (Orange County Nursery, Inc., tenant)	0	0
23	Andrew De Voss and Alice De Voss (Arthur De Voss and Arthur Atsma,		
24	tenants)	36	29
25	Agnes De Vries (Gerrit Anker, tenant)	16	13
26	Dick De Vries and Theresa De Vries	10	8
27	Gerrit De Vries and Claziena De Vries	18	14
28	Gerrit Deyager and Dena Deyager	0	0

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Lloyd W. Dinkelspiel, Jr. (see listing under name of Florence Hellman Ehrman)		
4			
5	District VII, Division of Highways of the State of California Department of Public Works (see listing under name of State of California)		
6			
7	Dominguez Estate Company	0	0
8	Dominguez Seminary and Claretian Jr. Seminary	111	89
9			
10	Dominguez Water Corporation	8,012	6,410
11	Peter Dotinga and Tena Dotinga (Dave Bajema, tenant)	9	7
12	Robert L. Dougherty	0	0
13	Downey Cemetery District	21	17
14	Downey Fertilizer Co. (see listing under name of Downey Land Company)		
15			
16	Downey Land Company (Downey Fertilizer Co., tenant)	101	81
17	Downey Valley Water Company	87	70
18	Jim Drost	0	0
19	James Dykstra and Dora Dykstra (John Den Hollander, tenant)	6	5
20			
21	John Dykstra and Wilma Dykstra	52	42
22	Cor Dyt and Andy Dyt	6	5
23	Eagle Picher Company	141	113
24	Gail H. Eagleton	67	54
25	Florence Hellman Ehrman; I. W. Hellman, Jr.; Frederick J. Hellman; Marco F. Hellman; Clarence E. Heller; Alfred Heller, Elizabeth Heller; Clarence E. Heller, Elinor R. Heller and Wells Fargo Bank, as co-executors of the Estate of Edward H. Heller, deceased; Lloyd W. Dinkelspiel, Jr., William H.		

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Green and Wells Fargo Bank, as co-		
4	executors of the Estate of Lloyd W.		
5	Dinkelspiel, deceased; Wells Fargo		
6	Bank, as Trustee under the trust		
7	created by the Will of Florence H.		
8	Dinkelspiel, deceased. (Union Oil		
9	Company of California, Lessee as to		
10	190 acre-feet of right and as to		
11	152 acre-feet of allowed pumping		
12	allocation)	555	444
13	El Rancho Unified School District	69	55
14	Berton Elson (see listing under		
15	name of D. P. Winslow)		
16	John H. Emoto and Shizuko Emoto	0	0
17	Addie L. Enfield (see listing under		
18	name of James L. Stamps)		
19	John W. England and Consuello England		
20	(see listing under name of Jenkins		
21	Realty Mutual Water Co.)		
22	Emma Engler (Morris Weiss, tenant)	10	8
23	Anthony F. Escobar and Eva M.		
24	Escobar (Henry Kampen, tenant)	14	11
25	Excelsior Union High School District	381	305
26	Kenneth A. Farris and Wanda Farris	1	1
27	Federal Ice and Cold Storage Company	92	74
28	Fred Fekkes (see listing under name of		
29	Steve Stefani, Sr.)		
30	Julius Felsenthal and Mrs. Julius		
31	Felsenthal, aka Marga Felsenthal	1	1
32	Tony Fernandes (see listing under name		
33	of U. Stewart Jones)		
34	Joe C. Ferreira and Carolina Ferreira		
35	(Joe C. Ferreira and Joe C. Ferreira,		
36	Jr., operators of well facility)	37	30
37			
38			

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Mary A. Ferreira (Joe Lucas, tenant)		
4	(see also listing under name of Jack Gonsalves)	1	1
5	John Feuz, Jr.	0	0
6	Fibreboard Paper Products Corporation	1,521	1,217
7	Abe Fien	0	0
8	Alfred Fikse, Jr. and Aggie Fikse	2	2
9	Henry Fikse and Jennie Fikse	4	4
10	Filtrol Corporation	570	456
11	The Firestone Tire & Rubber Co.	1,536	1,229
12	First Western Bank & Trust Co. (see listing under name of Mary Cordeiro)		
13	Clare Fisher	0	0
14			
15	Elizabeth Flesch, James Flesch, Margaret Flesch, Theodore Flesch, Ernest D. Roth and Eva Roth, doing business as Norwalk Mobile Lodge	18	14
16			
17	The Flintkote Company	2,567	2,054
18	Ford Motor Company	11	9
19	Robert G. Foreman (see listing under name of Lakewood Pipe Co.)		
20			
21	Guisseppi Franciosi and Alice Franciosi	2	2
22	Tony V. Freitas (see listing under name of Bank of America, etc.)		
23	S. Fujita	0	0
24	Jun Fukushima (see listing under name of Chige Kawaguchi)		
25			
26	Paul Fultheim and Helga Fultheim	5	4
27	Fumi Garden Farms, Inc. (see listing under name of Southern California Edison Company and also under name of George Yamamoto)		
28			

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Gabby Louise, Inc. (Arthur Gilbert &		
4	Associates, tenant)	58	46
5	Victor E. Gamboni and Barbara H. Gamboni		
6	(Jake J. Alewyn and Mrs. Jake J.		
7	Alewyn also known as Normalie May		
8	Alewyn, tenants as to 13 acre feet of		
9	water right and 10 acre feet of		
10	allowed pumping allocation)	27	22
11	Nick Gandolfo and Palmera Gandolfo	5	4
12	Freddie A. Garrett and Vivian		
13	Marie Garrett	6	5
14	Martha Gatz	15	12
15	General Dynamics Corporation	675	540
16	General Telephone Company of California	2	2
17	Alfred Giacomi and Jennie Giacomi	58	46
18	Arthur Gilbert & Associates (see listing		
19	under name of Gabby Louise Inc.)		
20	Mary Godinho	0	0
21	Pauline Godinho (Joe C. Godinho and		
22	John C. Godinho, Jr., doing business		
23	as Godinho Bros. Dairy, tenants)	31	25
24	Harry N. Goedhart, Henry Otto Goedhart,		
25	Hilbrand John Goedhart, John Goedhart,		
26	Otto Goedhart, Jr., Peter Goedhart,		
27	and Helen Goedhart Van Eik (Paramount		
28	Farms, tenant)	21	17
	Reimer Goedhart	12	10
	Golden Wool Company	223	178
	Albert S. Gonsalves and Caroline D.		
	Gonsalves	10	8
	Frank A. Gonsalves (see listing under		
	name of Bank of America National Trust		
	and Savings Association, etc.; and		
	also under name of Jake De Jong)		

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Jack Gonsalves, Joe Lucas, Pete Koopmans,		
4	Manuel M. Souza, Sr., Manuel M. Souza,		
5	Jr., Frank M. Souza, Louie J. Souza,	55	44
6	and Mary A. Ferreira		
7	Jack Gonsalves and Mary Gonsalves	31	25
8	Joaquin Gonsalves and Elvira Gonsalves	27	22
9	Joe A. Gonsalves and Virginia Gonsalves	12	10
10	The B. F. Goodrich Company	519	415
11	The Goodyear Tire & Rubber Company	1,141	913
12	Eric Gorden and Hilde Gorden	2	2
13	Fern Ethyl Gordon as to an undivided		
14	1/2 interest; Fay G. Tawzer and		
15	Lawrence R. Tawzer, as to an undivided		
16	1/2 interest	17	14
17	Huntley L. Gordon (appearing by and		
18	through United California Bank, as		
19	Conservator of the Estate of		
20	Huntley L. Gordon)	41	33
21	Robert E. Gordon	5	4
22	Joe Gorzeman and Elsie Gorzeman	13	10
23	Florence M. Graham	7	6
24	Marie Granger	0	0
25	Great Western Malting Company	448	358
26	William H. Green (see listing under name		
27	of Florence Hellman Ehrman)		
28	Greene-Howard Petroleum Corporation (see		
	listing under name of Hathaway Company)		
	John H. Gremmius and Henry W. Gremmius		
	dba Henry and John Gremmius	0	0
	Leonard A. Grenier and Marie Louise		
	Grenier (John Boere, Jr., tenant)	10	8
	Florence Guerrero	2	2

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Louis Guglielmana (see listing under		
4	name of Central Manufacturing		
	District, Inc.)		
5	George V. Gutierrez and Mrs. Socorro		
6	Gutierrez (see listing under name of		
	Associated Southern Investment Company)		
7	Salvatore Gutierrez (see listing under		
8	name of Southern California Edison		
	Company)		
9	H. J. S. Mutual Water Co.	63	50
10	H R M Land company (Harron, Rickard &		
11	McCone Company of Southern California		
	and Calavar Corporation, tenants)	3	3
12	Gerrit Haagsma and Mary Haagsma	10	8
13	Ed Haakma and Sjana Haakma (Del Amo Dairy,		
14	tenant; Ed Haakma and Pete Vander Kooi,		
	being partners of said Del Amo Dairy)	28	22
15	Verney Haas and Adelyne Haas	4	4
16	William H. Hadley and Grace Hadley	4	4
17	Henry C. Haflinger and Emily Haflinger	10	8
18	Clarence Theodore Halburg	3	3
19	Fred Hambarian	2	2
20	Henry Hamstra and Nelly Hamstra	33	26
21	Raymond Hansen and Mary Hansen	12	10
22	Earl Haringa; Evert Veenendaal and		
23	Gertrude Veenendaal	22	18
24	Antoine Harismendy and Claire Harismendy	0	0
25	Harron, Rickard & McCone Company of		
26	Southern California (see listing		
	under name of H R M Land Company)		
27	Jack D. Hastings	0	0
28	Kameko Hatanaka	9	7

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Kazuo Hatanaka (Minoru Yoshijima, tenant)	10	8
4	Masakazu Hatanaka, Isao Hatanaka, and		
5	Kenichi Hatanaka	5	4
6	Mrs. Motoye Hatanaka	0	0
7	Hathaway Company, Richard F. Hathaway,		
8	Julian I. Hathaway, and J. Elwood		
9	Hathaway (Greene-Howard Petroleum		
10	Corporation, tenant utilizing less		
11	than 1 acre foot per year)	70	56
12	Clarence E. Heller; Alfred Heller;		
13	Elizabeth Heller; Clarence E. Heller;		
14	Elinor R. Heller, as co-executors of		
15	the Estate of Edward H. Heller,		
16	deceased (see listing under name of		
17	Florence Hellman Ehrman)		
18	I. W. Hellman, Jr.; Frederick J. Hellman;		
19	Marco F. Hellman (see listing under		
20	name of Florence Hellman Ehrman)		
21	Ralph Hicks	0	0
22	Alfred V. Highstreet and Evada V.		
23	Highstreet	10	8
24	John Highstreet and Eileen M. Highstreet	9	7
25	Bob Hilarides and Maaike Hilarides		
26	(Frank Hilarides, tenant)	51	41
27	John Hilarides and Maria Hilarides	26	21
28	Hajime Hirashima (see listing under		
29	name of Masaru Uyeda)		
30	Willis G. Hix	1	1
31	Henry H. Hoffman and Apolonia Hoffman	12	10
32	Dick Hofstra	0	0
33	Andrew V. Hohn and Mary G. Hohn	1	1
34	Kyle R. Holmes and Grace Ellen Holmes	20	16
35	Home Water Company	35	28

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Manuel L. Homen	17	14
4	Mrs. Paul Y. Homer (see listing under name of Mrs. Paul Y. Homer (King).)		
5			
6	Cornelis Hoogland and Alice Hoogland	15	12
7	Art Hop, Jr.	0	0
8	Art Hop, Sr. and Johanna Hop (G. A. Van Beek, tenant)	5	4
9	Andrew Hop, Jr. and Muriel Hop	33	26
10	Theodore R. Houseman and Leona M. Houseman	14	11
11			
12	Humphries Investments Incorporated (see listing under name of Copp Equipment Company, Inc.)		
13			
14	Albert Huyg and Marie Huyg	22	18
15	Hygenic Dairy Farms, Inc.	0	0
16	Pete W. Idsinga and Annie Idsinga	13	10
17	Miss Alice M. Imbert	1	1
18	Industrial Asphalt of California, Inc.	116	93
19	Inglewood Park Cemetery Association	285	228
20	International Carbonic, Inc. (see listing under name of P. T. Beeghly)		
21	Jugora Ishii and Mumeno Ishii (Ishii Brothers, tenant)	10	8
22			
23	Robert J. Jamison and Betty Jamison	7	6
24	Jenkins Realty Mutual Water Co. (Clyde H. Jenkins, Minnie R. Jenkins, Mary Wilcox, Ruby F. Marchbank, Robert B. Marchbank, John W. England, and Consuello England, shareholders	10	8
25			
26	John-Wade Co.	1	1
27			
28	Henry S. Jones and Madelynne Jones	1	1

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	U. Stewart Jones and Dorothy E. Jones (Tony Fernandes, tenant)	1	1
4			
5	Harold Jongsma and Mary N. Jongsma	65	52
6	W. P. Jordan (see listing under name of Henry Van Ruiten)		
7	Dave Jorritsma and Elizabeth Jorritsma	27	22
8	Christine Joseph (see listing under name of Helen Wolfsberger)		
9			
10	Junior Water Co., Inc.	737	590
11	Kal Kan Foods, Inc.	120	96
12	Kalico, Inc.	4	4
13	Hagop Kalustian (11 acre feet of total water right attributable to well located at 6629 South Street, Lake- wood and reported to plaintiff under Producer No. 3925. 2 acre feet of total water right attributable to portion of property not sold to State of California formerly served by well located at 10755 Artesia Blvd., Artesia, the production of which well was reported to plaintiff under Producer No. 4030)	13	10
14			
15			
16			
17			
18			
19	Fritz Kampen and Clare Kampen	14	11
20	William Kamstra and Bertha Kamstra	35	28
21	Henry Kampen (see listing under name of Anthony Escobar)		
22			
23	L. Kauffman Company, Inc. (see listing under name of Lorraine K. Meyberg)		
24	Chige Kawaguchi and Masao Kawaguchi (Jun Fukushima, tenant)	4	4
25			
26	King Kelley Marmalade Co. (see listing under name of Roberta M. Magnusson)		
27	Mrs. Paul Y. Homer (King)	17	14
28	Jacob R. Kimm and Bonnie Kimm	36	29

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Mrs. Oraan Kinne (Nicholaas J. Moons, tenant)	11	9
4			
5	Morris P. Kirk & Son, Inc.	77	62
6	Jake Knevelbaard and Anna Knevelbaard	50	40
7	Willie Knevelbaard and Joreen Knevelbaard	1	1
8	Simon Knorringa	12	10
9	John Koetsier, Jr.	0	0
10	Myron D. Kolstad (see listing under name of Frank Bouma)		
11			
12	Yoshio Kono and Barbara Kono (see listing under name of George Mimaki)		
13	Louis Koolhaas	13	10
14	Simon Koolhaas and Sophie Grace Koolhaas	9	7
15	Pete Koopmans (see listing under name of Jack Gonsalves)		
16			
17	Nick P. Koot (see listing under name of Mary Myrndahl)		
18	Kotake, Inc. (Masao Kotake, Seigo Kotake, William Kotake, dba Kotake Bros., tenants)	83	66
19			
20	Masao Kotake	0	0
21	Walter G. Kruse and Mrs. Walter G. Kruse, aka Vera M. Kruse	11	9
22	Laguna-Maywood Mutual Water Company No. 1	1,604	1,283
23			
24	La Habra Heights Mutual Water Company	3,044	2,435
25	La Hacienda Water Company	46	37
26	Lakewood Pipe Co., a partnership composed of Robert G. Foreman, Frank W. Tybus and June E. Tybus		
27	(Lakewood Pipe Service Co., tenant)	12	10
28			

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	P. Basil Lambros (see listing under		
4	name of Nicholas C. Conteas)		
5	La Mirada Drive-in Theater (see listing		
6	under name of Cowlitz Amusements, Inc.)		
7	La Mirada Water Company	0	0
8	Calvin E. Langston and Edith Langston	1	1
9	S. M. Lanting and Alice Lanting	15	12
10	Henry Lautenbach and Nellie H. Lautenbach	16	13
11	Norman Lautrup, as Executor of the Estate		
12	of Nels Lautrup, deceased; and Minnie		
13	Margaret Lautrup	30	24
14	Frank C. Leal and Lois L. Leal		
15	(D. V. Dairy, tenant)	15	12
16	Eugene O. LeChasseur and Lillian P.		
17	LeChasseur (R. A. LeChasseur, tenant)	2	2
18	Lee Deane Products, Inc.	0	0
19	Harley Lee (see listing under name of		
20	Delbert G. Black)		
21	Le Fiell Manufacturing Company	0	0
22	Armand Lescoulie (see listing under name		
23	of Southern California Edison Company)		
24	Liberty Vegetable Oil Company	14	11
25	Little Lake Cemetery District	17	14
26	Little Lake School District	0	0
27	Loma Floral Company (see listing		
28	under name of George Mimaki)		
29	Melvin L. Long and Stella M. Long	2	2
30	Nick J. Loogman (see listing under		
31	name of William Smoorenburg)		
32	Frank Lorenz (see listing under name of		
33	Ralph Oosten)		

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Los Angeles County Waterworks District No. 1 (Base Water Right 22)	113	90
4			
5	Los Angeles County Waterworks District No. 10	842	674
6	Los Angeles County Waterworks District No. 16	412	330
7			
8	Los Angeles Paper Box and Board Mills	321	257
9	Los Angeles Union Stockyards Company	0	0
10	Los Nietos Tract 6192 Water Co.	49	39
11	Alden Lourenco (see listing under name of A. C. Pinheiro)		
12	Lowell Joint School District	0	0
13	Joe Lucas (see listings under names of Mary A. Ferreira and Jack Gonsalves)		
14			
15	Luer Packing Co. (see listing under name of Sam Perricone)		
16	Jake J. Luetto (Orange County Nursery, Inc., tenant)	13	10
17			
18	Lunday-Thagard Oil Co.	265	212
19	Joe Luond (Frieda Roethlisberger, tenant as to portion of rights)	7	6
20	John Luscher and Frieda Luscher	13	10
21	Paul H. Lussman, Jr. and Ann Lussman, Siegfried Binggeli and Trina L. Binggeli (Paul's Dairy, tenant)	8	6
22			
23	Lynwood Gardens Mutual Water Company	205	164
24	Lynwood Park Mutual Water Company	278	222
25	Jerome D. Mack and Joyce Mack (see listing under name of D. S. Moss)		
26			
27	Roberta M. Magnusson (King Kelly Marmalade Co., tenant)	15	12
28	Anthony Mancebo	0	0

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Robert B. Marchbank and Ruby F. Marchbank		
4	(see listing under name of Jenkins		
	Realty Mutual Water Co.)		
5	Harold Marcroft and Marjorie Marcroft		
6	(Noble G. Daniels, tenant)	7	6
7	Floyd G. Marcusson (see listing under		
	name of Sykes Realty Co.)		
8	Walter Marlowe and Edna Marlowe	1	1
9	Marshburn, Inc. (see listing under name		
	of Mel, Inc.)		
10	The Martin Bros. Container & Timber		
11	Products Corp.	7	6
12	Mary Martin	35	28
13	Antonio Mathias and Mary Mathias	16	13
14	Mausoleum Park, Inc. and Sun Holding		
15	Corporation	4	4
16	Maywood Mutual Water Company No. 1	926	741
17	Maywood Mutual Water company No. 2	1,007	806
18	Maywood Mutual Water Company No. 3	1,407	1,126
19	Mel, Inc. (Marshburn, Inc., tenant)	67	54
20	G. Mellano	12	10
21	Wilbur Mellema and Mary Mellema (see		
	listing under name of Elmo D. Murphy)		
22	Wilbur Mellema (see listing under name		
23	of Morris Weiss)		
24	Memorial Parks, Inc.	42	34
25	Lyman B. Merrick and Gladys L. Merrick	17	24
26	Metropolitan State Hospital of the State		
27	of California Department of Mental		
	Hygiene (see listing under name of		
	State of California)		
28	F. N. Metzger	0	0

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Lorraine K. Meyberg (L. Kauffman Company, Inc., tenant)	81	65
4	Midland Park Water trust	71	57
5	Midway Gardens Mutual Association	59	47
6	Harry C. Miersma and Dorothy L. Miersma	12	10
7	Henry Miersma and Susan M. Miersma	7	6
8	Willis L. Miller	0	0
9			
10	George Mimaki, Mitsuko Mimaki, Yoshio Kono and Barbara Kono (Loma Floral Company, tenant)	2	2
11			
12	Ray Mitchell (see listing under name of Corporation of the Presiding Bishop of the Church of Jesus Christ of Latter Day Saints; and also listing under name of Frank Ruggieri)		
13			
14	Fumiko Mitsuuchi, aka Mary Mitsuuchi (Z. Van Spanje, tenant as to one acre foot)	14	11
15			
16	Yoneichi Miyasaki	0	0
17	Glenn Miyoshi, Yosaku Miyoshi, Masayo Miyoshi, Haruo Miyoshi, and Masaru Miyoshi, dba Miyoshi Bros.	10	8
18			
19	Jean Mocho and Michel Plaa	11	9
20	Modern Imperial Company	71	57
21	Montebello Land and Water Company	1,990	1,592
22	Monterey Acres Mutual Water Company	128	102
23	Nicholaas J. Moons (see listing under name of Mrs. Oraan Kinne)		
24			
25	Alexander Moore and Betty L. Moore	16	13
26	Neal Moore	0	0
27	Alyce Mooschekian	0	0
28	Reuben Mooschekian	15	12

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	William R. Morris	1	1
4	(see also listing under name of Associated Southern Investment Company)		
5	D. S. Moss, Lillian Moss, Jerome D. Mack, and Joyce Mack	5	4
6			
7	Mountain View Dairies, Inc.	68	54
8			
9	Kiyoshi Murakawa and Shizuko Murakawa	0	0
10			
11	Daisaku Murata, Fui Murata, Hatsuye Murata, Kenji Murata, Setsuko Murata, and Takeo Murata	15	12
12			
13	Kenji Murata (see listing under name of Southern California Edison Company)		
14	Elmo D. Murphy and Evelene B. Murphy (Morris Weiss, Bessie Weiss, Wilbur Mellema, and Mary Mellema, tenants)	23	18
15			
16	Murphy Ranch Mutual water company	576	461
17			
18	Etta Murr	3	3
19			
20	R. B. Murray and Gladys J. Murray	0	0
21			
22	Tony G. Mussachia and Anna M. Mussachia	10	8
23			
24	Mary Myrndahl (Nick P. Koot, tenant)	11	9
25			
26	Sam Nakamura and Tokiko Nakamura	2	2
27			
28	Leo Nauta (see listing under name of John Osinga)		
	Pete Nauta (see listing under name of Jacob Vandenberg)		
	Fred C. Nelles School for Boys of the State of California Department of the Youth Authority (see listing under name of State of California)		
	Otelia Nelson and Robert Nelson (Shelter Superior Dairy, tenant)	14	11
	Simon S. Niekerk and Rose Niekerk (Niekerk Hay Company, tenant)	3	3

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Norris-Thermador Corporation	172	138
4	North Gate Gardens Water Co.	60	48
5	Norwalk-La Mirada City School District	360	288
6	Norwalk Mobile Lodge (see listing under name of Elizabeth Flesch)		
7			
8	Mabel E. Nottingham (Leslie Nottingham, tenant)	25	20
9	William Offinga & Son, including Sidney Offinga (see listing under name of Henry Boer)		
10			
11	Olive Lawn Memorial Park, Inc.	14	11
12	John Oord	0	0
13	Marinus Oosten and Anthonia Oosten	16	13
14	Ralph Oosten and Caroline Oosten (Frank Lorenz, tenant as to 13 acre feet of water right and 10 acre feet of allowed pumping allocation)	51	41
15			
16	Orange County Nursery, Inc. (see also: listing under name of Ruth E. Dever; listing under name of Jake J. Luetto; and listing under name of Mary Ravera)	16	13
17			
18	Orchard Dale County Water District (Base Water Right - 1,382)	1,384	1,107
19			
20	Orchard Park Water Club, Inc.	50	40
21			
22	Oriental Foods, Inc.	34	27
23	Orla Company (John D. Westra, tenant)	7	6
24	Viva Ormonde (see listing under name of Hank Van Dam)		
25			
26	Pablo Oropeza and Aurelia G. Oropeza (Pablo Oropeza, Jr., tenant) (see also listing under name of Tarr and McComb Oil Company, Ltd.)		
27			
28	John Osinga (Leo Nauta, tenant)	6	5

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Manuel B. Ourique (see listing under name of John Borges)		
4	Owl Constructors	20	16
5	Pacific Electric Railway Company		
6	(Gerrit Van Leeuwen of 15405 Shoemaker Road, Norwalk, tenant as to 11 acre feet of right and 9 acre feet of allowed pumping allocation)	15	12
7			
8	Packers Mutual Water Company	43	34
9	Edward G. Paddison and Grace M. Paddison	17	14
10			
11	Paramount Farms (see listing under name of Harry N. Goedhart)		
12	Paramount County Water District	2,967	2,374
13	Paramount Unified School District	58	46
14	Park Water Company	24,592	19,674
15	W. J. Parsonson	0	0
16	Rudolph Pasma and Frances C. Pasma	10	8
17	Paul's Dairy (see listing under name of Paul H. Lussman, Jr.)		
18	Mrs. La Verne Payton	1	1
19	Peerless Land & Water Co., Inc.	1,232	986
20	J. C. Pereira, Jr. and Ezaura Pereira	34	27
21	Sam Perricone and Louis Romoff (Luer Packing Co., tenant)	107	86
22	Peterson Manufacturing Co., Inc.	73	58
23	Phelps Dodge Copper Products Corporation	390	312
24	Pico County Water District	3,741	2,993
25	Piedmont Heights Water Club	7	6
26	Lucille C. Pimental (Richard Pimental and Pimental Dairy, tenants)	16	13
27			
28			

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Joe Pine (see listing under name		
4	of A. C. Pinheiro)		
5	A. C. Pinheiro and Mary M. Pinheiro		
6	(Alden Lourenco, tenant as to 9 acre		
7	feet of water right and 7 acre feet		
8	of allowed pumping right; and Joe		
9	Pine, tenant as to 13 acre feet of		
10	water right and 10 acre feet of		
11	allowed pumping right)	128	102
12	Fred Pinto and Mary Pinto	5	4
13	Frank Pires (see listing under name		
14	of Frank Simas)		
15	Tony C. Pires and Laura C. Pires	31	25
16	Michel Plaa (see listing under name		
17	of Jean Mocho)		
18	Donald R. Plunkett	53	42
19	Pomering Tract Water Association	32	26
20	Clarence Pool	24	19
21	Garret Porte and Cecelia Porte	35	28
22	Veronica Postma	16	13
23	C. H. Powell	1	1
24	Powerine Oil Company	784	627
25	John Preem	0	0
26	Ralph Pylman and Ida Pylman	13	10
27	Quality Meat Packing Company	38	30
28	Ralphs Grocery Company	0	0
	Arthur D. Ramsey and James A. Ramsey	5	4
	Rancho Santa Gertrudes Mutual		
	Water System	48	38
	Mary Ravera (Orange County Nursery,		
	Inc., tenant	39	31

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Zelma Ravera	2	2
4	Rawlins Investment Corporation (Rockview Milk Farms, Inc., tenant)	66	53
5	Hal Rees	0	0
6	Reeves Tract Water Company	36	29
7	Clarence Reinalda	0	0
8	Reliance Dairy Farms	122	98
9	Research Building Corporation (Dr. Russell B. Clark, tenant)	11	9
10	Richfield Oil Corporation	71	57
11	Richland Farm Water Company	216	173
12	George Rietkerk and Cornelia Rietkerk	7	6
13	Rio Hondo Country Club (see listing under name of James L. Stamps)		
14	Erasmio Rios (see listing under name of Esther Salcido)		
15	Jesus Rios (see listing under name of Esther Salcido)		
16	Frank J. Rocha, Jr. and Elsie M. Rocha	13	10
17	Rockview Milk Farms, Inc. (see listing under name of Rawlins Investment Corporation)		
18	John Rodrigues, Emily S. Rodrigues, and John Rodrigues, Jr. (see also below)	5	4
19	John Rodrigues and John Rodrigues Jr.	1	1
20	Frieda Roethlisberger (see listing under name of Joe Luond)		
21	Patricia L. Davis Rogers, aka Patricia L. Davis	2	2
22	The Roman Catholic Archbishop of Los Angeles, a corporation sole	426	341
23			
24			
25			
26			
27			
28			

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Gladys Marie Romberg (see listing under		
4	name of Bernard William Bootsma)		
5	Alois M. Rombout	0	0
6	Louis Romoff (see listing under name		
7	of Sam Perricone)		
8	Elvira C. Rosales	3	3
9	Frank J. Ross	2	2
10	Ernest D. Roth and Eva Roth (see		
11	listing under name of Elizabeth Flesch)		
12	Ed Roukema	0	0
13	Herbert N. Royden	31	25
14	Ruchti Brothers	31	25
15	Frank Ruggieri and Vada Ruggieri	1	1
16	(see additional listing below)		
17	Frank Ruggieri and Vada Ruggieri;		
18	David Seldeen and Fay Seldeen (Ray		
19	Mitchell, tenant)	23	18
20	Thomas S. Ryan and Dorothy J. Ryan	19	15
21	Sam Rypkema and Tena Rypkema	8	6
22	St. John Bosco School	53	42
23	James H. Saito and Yoshino Saito	2	2
24	Esther Salcido and Jesus Rios (Erasmus		
25	Rios, tenant)	3	3
26	San Gabriel Valley Water Company	6,828	5,462
27	Joe Santana and Palmira Santana	10	8
28	Sasaki Bros. Ranch, Inc.	32	26
	Sativa L. A. County Water District	592	474
	Ben Schilder, Jr. and Anna Schilder	28	22
	Carl Schmid and Olga Schmid	18	14

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Mrs. A. Schuur	0	0
4	John Schuurman and Isabel Schuurman		
5	(James Sieperda, tenant)	15	12
6	David Seldeen and Fay Seldeen (see		
7	listing under name of Frank Ruggieri)		
8	Maurice I. Sessler	8	6
9	Chris Shaffer and Celia I. Shaffer	8	6
10	Shayman & Wharram, a partnership,		
11	consisting of John W. Shayman		
12	and Francis O. Wharram	2	2
13	Shell Oil Company (see listing under name		
14	of Margaret F. Slusher)		
15	Shelter Superior Dairy (see listing under		
16	name of Otelia Nelson)		
17	Tadao Shiba and Harume Shiba, Susumu		
18	Shiba, and Mitsuko Shiba	7	6
19	Yahiko Shiozaki and Kiyoko Shiozaki;		
20	Ken Shiozaki and Grace Shiozaki	6	5
21	Shore-Plotkin Enterprises, Inc.		
22	(Shore-Calnevar, Inc., tenant)	0	0
23	J. E. Siemon	15	12
24	James Sieperda (see listing under		
25	name of John Schuurman)		
26	Sierra Restaurant Corporation	0	0
27	Frank Simas and Mabel Simas (Frank		
28	Pires, tenant)	11	9
29	Bennett E. Simmons and Alice Lorraine		
30	Simmons, George K. Simmons and Doris		
31	June Simmons (Bell Trailer City, tenant)	41	33
32	Margaret F. Slusher (Shell Oil Company,		
33	tenant)	7	6
34	Lester W. Smith and Donald E. Smith		
35	(Lester W. Smith Dairy, tenant)	20	16

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Wirt Smith	14	11
4	William Smoorenburg and Nick J.		
5	Loogman (Smoorenburg & Loogman, a		
6	partnership of William Smoorenburg		
	and Nick J. Loogman, operating well		
	facility)	21	17
7	Leo Snozzi and Sylvia Snozzi	52	42
8	Socony Mobil Oil Company, Inc.	172	138
9	Somerset Mutual Water Company	2,744	2,195
10	South Montebello Irrigation District	1,238	990
11			
12	Southern California Edison Company		
13	(Vernon Bacon; Chikami Bros. Farming,		
14	consisting of Jack Chikami and		
15	Shigeru Chikami; Louis F. De Martini;		
16	Armand Lescoulie; C. D. Webster; Kenji		
17	Murata; Glenn F. Spiller and Jean H.		
18	Spiller; George Yamamoto and Alice		
19	Yamamoto, conducting business as Fumi		
20	Garden Farms, Inc.; and Salvatore		
21	Gutierrez, tenants and licenses)	816	653
22	Southern California Water Company	18,937	15,150
23	Southern Service Company, Ltd.	81	65
24	Henrietta Southfield	4	4
25	John Southfield	0	0
26	Southwest Water Company	2,895	2,316
27	Manuel M. Souza, Sr.; Manuel M.		
28	Souza, Jr.; Frank M. Souza and		
	Louie J. Souza (see listing under		
	name of Jack Gonsalves)		
	Nelson Souza and Mary Souza	12	10
	Glenn F. Spiller and Jean H. Spiller	24	19
	(see also listing under name of		
	Southern California Edison company)		
	Farah Sprague	3	3

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Herman F. Staat and Charlotte H. Staat	2	2
4	James L. Stamps, as to an undivided		
5	80% interest; Addie L. Enfield, as		
6	to an undivided 20% interest (Rio		
	Hondo Country Club, tenant)	443	354
7	Standard Oil Company of California	118	94
8	J. F. Standley and Myrtle M. Standley	1	1
9	Star Dust Lands, Inc.	85	68
10	State of California (included herein are		
11	water rights of Fred C. Nelles School		
12	for Boys of the State of California		
13	Department of the Youth Authority;		
14	Metropolitan State Hospital of the		
15	State of California Department of		
16	Mental Hygiene; and District VII,		
17	Division of Highways of the State of		
18	California Department of Public Works)	757	606
19	Stauffer Chemical Company	181	145
20	John Steele and Clara D. Steele	4	4
21	Steve Stefani, Jr.	0	0
22	Steve Stefani, Sr., and Dora Stefani		
23	(Henry Baar and Fred Fekkes, tenants)	38	30
24	Andrew Stellingwerf	0	0
25	Henry Stellingwerf and Jeanette		
26	Stellingwerf	14	11
27	Henry Sterk and Betty S. Sterk	114	91
28	V. C. Stiefel	3	3
	Sophia J. Stockmal and John F. Stockmal	3	3
	William Thomas Stover and Gertrude D.		
	Stover	3	3
	Louis Struikman and Alice Struikman (Louis		
	Struikman and Pete Struikman dba Louis		
	Struikman and Son, tenants as to 43 acre		
	feet of water right and 34 acre feet of		
	allowed pumping allocation; and Sidney		

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Van Dyke, tenant as to 10 acre feet of		
4	water right and 8 acre feet of allowed		
	pumping allocation) (see also below)	53	42
5	Louis Struikman and Peter Struikman	3	3
6	Cornelius Struikmans and Ida Struikmans	9	7
7	Henry Struikmans and Nellie Struikmans	13	10
8	Henry Struikmans, Jr.	0	0
9	Suburban Mutual Water Co.	0	0
10	Suburban Water Systems	3,666	2,933
11	Kazuo Sumida	2	2
12	Sun Coast Development Company	0	0
13	Sun Holding Corporation (see listing		
14	under name of Mausoleum Park, Inc.)		
15	Sunnyside Mausoleum Company	60	48
16	Sunset Cemetery Association	26	21
17	E. A. Sutton and Ramona Sutton	39	31
18	Swift & Company	2,047	1,638
19	Roy Sybrandy and Anne Sybrandy	29	23
20	Sykes Realty Co., Floyd G. Marcusson		
	and Albert C. Sykes	2	2
21	Andy Sytsma and Dorothy Sytsma (Albert		
22	Sytsma and Robert Sytsma, doing		
	business as Sytsma Bros., tenants)	20	16
23	Tarr and McComb Oil Company, Ltd. (Pablo		
24	Oropeza, tenant)	86	69
25	Roy Tashima and Shigeo Tashima	1	1
26	Fay G. Tawzer and Lawrence R. Tawzer (see		
	listing under name of Fern Ethyl Gordon)		
27	Dorothy Taylor	0	0
28	Quentin D. Taylor	0	0

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Carl Teixeira and Evelyn Teixeira	11	9
4	George S. Teixeira and Laura L. Teixeira	17	14
5	Harm Te Velde and Zwaantina Te Velde	253	202
6	Theo Hamm Brewing Co.	150	120
7	Thirty-Three Forty-Five East Forty-Fifth Street, Inc.	17	14
8			
9	O. T. Thompson and Drusilla Thompson	20	16
10	Tract Number One Hundred and Eighty Water Company	1,526	1,221
11	Tract 349 Mutual Water Company	529	423
12	Fred Troost and Annie Troost	53	42
13	Frank W. Tybus and June E. Tybus (see listing under name of Lakewood Pipe Co.)		
14			
15	Uehling Water Company, Inc.	846	677
16	Union Development Co., Inc.	12	10
17	Union Oil Company of California (see listing under name of Florence Hellman Ehrman)		
18			
19	Union Pacific Railroad Company	656	525
20	Union Packing Company	100	80
21	United California Bank (see listing under name of Huntley L. Gordon)		
22	United Dairymen's Association	1	1
23	United States Gypsum Company	1,581	1,265
24	United States Rubber Company	820	656
25	United States Steel Corporation	176	141
26	Masaru Uyeda, Hajime Hirashima, and Tadashi Uyeda	12	10
27			
28	G. A. Van Beek (see listing under name of Art Hop, Sr.)		

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Bas Van Dam (see listing under name of		
4	Gertrude Van Dam)		
5	Carrie Agnes Van Dam (see listing under		
6	name of Bernard William Bootsma)		
7	Cornelius A. Van Dam and Florence	24	19
8	Van Dam		
9	Dick Van Dam, Jr.	0	0
10	Gerrit Van Dam and Grace Van Dam		
11	(William De Kriek, tenant)	13	10
12	Gertrude Van Dam (Bas Van Dam, tenant		
13	as to 29 acre feet of water right and		
14	23 acre feet of allowed pumping		
15	right; and Henry Van Dam, tenant as to		
16	19 acre feet of water right and 15 acre		
17	feet of allowed pumping right)	48	38
18	Hank Van Dam and Jessie Van Dam (Viva		
19	Ormonde, tenant)	22	18
20	Henry Van Dam (see listing under name		
21	of Gertrude Van Dam)		
22	Jacob Vandenberg and Anna Vandenberg		
23	(Pete Nauta, tenant)	8	6
24	August Vandenburg, Ben W. Vandenburg,		
25	and Andrew W. Vandenburg (Jan Bokma,		
26	tenant)	6	5
27	John Van Den Raadt	4	4
28	M. Vander Dussen and Aletta C.		
29	Vander Dussen	12	10
30	Sybrand Vander Dussen and Johanna		
31	Vander Dussen	23	18
32	Helen Goedhart Van Eik (see listing under		
33	name of Harry N. Goedhart)		
34	Cornelius Vander Eyk, aka Case Vander		
35	Eyk, and Nelly Vander Eyk, aka Nellie		
36	Vander Eyk	7	6
37	George Van Der Ham and Alice Van Der Ham	10	8

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Huibert Vander Ham and Henrietta Vander Ham	33	26
4			
5	Joe Vanderham and Cornelia Vanderham	13	10
6	John Vanderham and Nell M. Vanderham	20	16
7	Charlie Vander Kooi and Lena Mae Vander Kooi (see also listing under name of Michel Bordato)	13	10
8			
9	Pete Vander Kooi (see listing under name of Ed Haakma)		
10	Bert Vander Laan and Stella Vander Laan	10	8
11	Matt Vander Sys and Johanna Vander Sys	13	10
12	Bill Vander Vegt and Henny Vander Vegt	18	14
13	George Vander Vegt and Houjke Vander Vegt	12	10
14	Harry J. Vander Wall and Marian E. Vander Wall	12	10
15			
16	Bert Vande Vegte and Lillian Vande Vegte	1	1
17	Anthony Van Diest	0	0
18	Jennie Van Diest, as to undivided 1/3 interest; Ernest Van Diest and Rena		
19	Van Diest, as to undivided 1/3 interest; and Cornelius Van Diest and Anna Van		
20	Diest, as to undivided 1/3 interest. (Van Diest Dairy, tenant)	20	16
21			
22	Katrena Van Diest and/or Margaret Van Diest	92	74
23	Henry W. Van Dyk (see listing under name of Henrietta Veenendaal)		
24			
25	Wiechert Van Dyk and Jennie Van Dyk	13	10
26	Corty Van Dyke (see listing under name of Charles E. Adams)		
27	Sidney Van Dyke (see listing under name of Louis Struickman)		
28			

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	William Van Foeken	0	0
4	Jake Van Haaster and Gerarda Van Haaster	0	0
5	Arie C. Van Leeuwen (see listing under name of Sam Bouman)		
6	Gerrit Van Leeuwen of 15405 Shoemaker Road, Norwalk (see listing under name of Pacific Electric Railway Company)		
7			
8	Henry Van Leeuwen and Caroline P. Van Leeuwen; Gerrit Van Leeuwen of 5948 Lorelei Street, Bellflower, and Ellen Van Leeuwen	1	1
9			
10	Jake Van Leeuwen, Jr. and Cornelia J. Van Leeuwen (James C. Boogerd and Jake Van Leeuwen, Jr. dba Van Leeuwen & Boogerd, tenants)	9	7
11			
12	Anthony R. Van Loon (see listing under name of Henry Van Ruiten)		
13			
14	John Van Nierop and Lily E. Van Nierop	0	0
15			
16	Henry Van Ruiten and Mary A. Van Ruiten, as to undivided 1/2 interest; and Jake Van Ruiten and Jacoba Van Ruiten, as to undivided 1/2 interest (W. P. Jordan, Anthony R. Van Loon, and Jules Wesselink, tenants)	88	70
17			
18	Pete Van Ruiten and Mary Van Ruiten (for purposes of clarification, this Mary Van Ruiten is also known as Mrs. Pete Van Ruiten and is not the same individual as sued herein as Mary A. Van Ruiten, who is also known as Mrs. Henry G. Van Ruiten)	38	30
19			
20	Z. Van Spanje (see listing under name of Fumiko Mitsuuchi)		
21			
22	Evert Veenendaal and Gertrude Veenendaal (see listing under name of Earl Haringa)		
23			
24	Henrietta Veenendaal (Henry W. Van Dyk, tenant)	10	8
25			
26			
27			
28			

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	\ Henry Veenendaal and Henrietta Veenendaal	8	6
4	Joe H. Veenendaal and Margie Veenendaal	34	27
5	John Veenendaal	0	0
6	Vehicle Maintenance & Painting Corporation		
7	(see listing under name of Nicholas C. Conteas)		
8	Salvador Velasco	16	13
9	Mike Veldhuis	0	0
10	Albert Veldhuizen and Helen Veldhuizen	23	18
11	Jack Verbree	0	0
12	Mrs. Klaasje Verburg (Leon Verburg		
13	to extent of interest under contract to purchase)	12	10
14	John C. Verhoeven and Sadie Verhoeven	25	20
15	Joseph C. Vierra and Caroline Vierra		
16	(Joseph C. Vierra and William J. Vierra, doing business as Vierra & Vierra, tenants)	13	10
17	Sieger Vierstra and Nellie G. Vierstra		
18	(Jacob J. Bosma, tenant)	12	10
19	Virginia Country Club of Long Beach	340	272
20	Roy Visbeek	0	0
21	Louis Visser	9	7
22	Vista Hill Psychiatric Foundation	39	31
23	Louie Von Ah	0	0
24	Walnut Irrigation District	154	123
25	Walnut Park Mutual Water Co.	1,245	996
26	C. D. Webster	1	1
27	(see also listing under name of Southern California Edison Company)		
28			

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Morris Weiss and Bessie Weiss (Wilbur		
4	Mellema, tenant)	20	16
5	(also see listings under names of		
6	Elmo D. Murphy and Emma Engler)		
7	Wells Fargo Bank as Executor of Estate		
8	of Edward H. Heller, Deceased, and as		
9	Executor of Estate of Lloyd W.		
10	Dinkelspiel, Deceased, and as Trustee		
11	under Trust created by the Will of		
12	Florence H. Dinkelspiel, Deceased		
13	(see listing under name of Florence		
14	Hellman Ehrman)		
15	Jules Wesselink (see listing under		
16	name of Henry Van Ruiten)		
17	West Gateway Mutual Water Co.	105	84
18	Henry Westra and Hilda Westra	40	32
19	John D. Westra (see listing under		
20	name of Orla Company)		
21	Francis O. Wharram (see listing under		
22	name of Shayman & Wharram)		
23	Whittier Union High School District	125	100
24	Arend Z. Wier	14	11
25	H. Wiersema, aka Harm Wiersema and		
26	Pearl Wiersema	16	13
27	William Wiersma and Elbra Wiersma	7	6
28	Richard Wigboly (see listing under		
29	name of Central Manufacturing		
30	District, Inc.)		
31	Mary Wilcox (see listing under name		
32	of Jenkins Realty Mutual Water Co.)		
33	Ralph P. Williams and Mary Williams	14	11
34	Wilshire Oil Company of California	1,795	1,436
35	Melvin L. Wilson and Marie Wilson	1	1
36	D. P. Winslow and Dorothy C. Winslow		
37	(Berton Elson, tenant)	15	12

	<u>Name</u>	<u>Total Water Right</u>	<u>Allowed Pumping Allocation</u>
1			
2			
3	Helene K. Winters	1	1
4	Fred E. Wiseman and Grayce Anna Wiseman	2	2
5	Helen Wolfsberger and Christine Joseph	2	2
6	Volney Womack	0	0
7	Cho Shee Woo (Hong Woo and Ngorn Seung		
8	Woo, as agents of property for Cho Shee Woo)	20	16
9	Gerrit Wybenga and Rena Wybenga	10	8
10	George Yamamoto and Alice Yamamoto,		
11	also known as Fumi Yamamoto (Fumi Garden Farms, Inc., tenant)	17	14
12	(see also listing under name of Southern California Edison Company)		
13	Paul N. Yokota and Miyo Yokota	4	4
14	Minoru Yoshijima (see listing under name of Kazuo Hatanaka)		
15			
16	Frank Yoshioka	0	0
17	Maxine Young	3	3
18	Mrs. A. Zandvliet also known as Anna A. Zandvliet	8	6
19	Arnold Zeilstra and Nellie Zeilstra	6	5
20	George Zivelonghi and Antonio Zivelonghi	121	97
21	Dick Zuidervlaart and Janna Zuidervlaart		
22	(Artesia Milling Company, tenant)	1	1
23	Andy Zylstra	0	0
24	Zylstra Bros. a partnership consisting of Lammert Zylstra and William Zylstra		
25	(see listing under name of John H. Coito)		
26	John Zylstra and Leonard J. Zylstra, doing business as The Zylstra Dairy	22	18
27	Leonard Zylstra (not the same person as Leonard J. Zylstra	0	0
28			

1 4. Transition in Administrative Year - Application.

2 "Year" and "Administrative Year" as used throughout this judgment
3 shall mean the water year; provided that with the first fiscal
4 year (July 1 - June 30) commencing at least four months after the
5 "Amended Judgment" became final, and thereafter, said words shall
6 mean the fiscal year. Since this will provide a transitional
7 Administrative year of nine months, October 1 - June 30, ("short
8 year" hereafter), notwithstanding the finding and determinations
9 in the annual Watermaster report for the then last preceding
10 water year, the Allowed Pumping Allocations of the parties and
11 the quantity which Defendant City of Los Angeles is annually
12 permitted to extract from Central Basin for said short year shall
13 be based on three-quarters of the otherwise allowable quantity.
14 During said short year, because of hardships that might otherwise
15 result, any overextractions by a party shall be deemed pursuant
16 to paragraph 2, Subpart B of Part III of this judgment (p. 61),
17 and it shall be deemed that the Watermaster has made the
18 determination of unreasonable hardship to which reference is
19 therein made.

20 II. APPOINTMENT OF WATERMASTER; WATERMASTER ADMINI-
21 STRATION PROVISIONS. Department of Water Resources of the State
22 of California is hereby appointed Watermaster, for an indefinite
23 term, but subject to removal by the Court, to administer this
24 judgment and shall have the following powers, duties and
25 responsibilities:

26 1. Duties, Powers and Responsibilities of Watermaster.

27 In order to assist the Court in the administration and enforce-
28 ment of the provisions of this judgment and to keep the Court

1 fully advised in the premises, the Watermaster shall have the
2 following duties, powers and responsibilities in addition to
3 those before or hereafter provided in this judgment:

4 (a) Watermaster May Require Reports, Information and
5 Records. To require of parties the furnishing of such reports,
6 information and records as may be reasonably necessary to
7 determine compliance or lack of compliance by any party with the
8 provisions of this judgment.

9 (b) Requirement of Measuring Devices. To require all
10 parties or any reasonable classification of parties owning or
11 operating any facilities for the extraction of ground water from
12 Central Basin to install and maintain at all times in good
13 working order at such party's own expense, appropriate measuring
14 devices at such times and as often as may be reasonable under the
15 circumstances and to calibrate or test such devices.

16 (c) Inspections by Watermaster. To make inspections
17 of ground water production facilities and measuring devices at
18 such times and as often as may be reasonable under the circum-
19 stances and to calibrate or test such devices.

20 (d) Annual Report. The Watermaster shall prepare,
21 file with the Court and mail to each of the parties on or before
22 the 15th day of the fourth month following the end of the
23 preceding Administrative year, an annual report for such year,
24 the scope of which shall include but not be limited to the
25 following:

- 26 1. Ground Water Extractions
- 27 2. Exchange Pool Operation
- 28 3. Use of Imported Water

- 1 4. Violations of Judgment and Corrective Action Taken
- 2 5. Change of Ownership of Total Water Rights
- 3 6. Watermaster Administration Costs
- 4 7. Recommendations, if any.

5 (e) Annual Budget and Appeal Procedure in Relation
6 Thereto. The Watermaster shall annually prepare a tentative
7 budget for each Administrative year stating the anticipated
8 expense for administering the provisions of this judgment. The
9 Watermaster shall mail a copy of said tentative budget to each of
10 the parties hereto at least 60 days before the beginning of each
11 Administrative year. For the first Administrative year of
12 operation under this judgment, if the Watermaster is unable to
13 meet the above time requirement, the Watermaster shall mail said
14 copies as soon as possible. If any party hereto has any
15 objection to said tentative budget, it shall present the same in
16 writing to the Watermaster within 15 days after the date of
17 mailing of said tentative budget by the Watermaster. If no
18 objections are received within said period, the tentative budget
19 shall become the final budget. If objections are received, the
20 Watermaster shall, within 10 days thereafter, consider such
21 objections, prepare a final budget and mail a copy thereof to
22 each party hereto, together with a statement of the amount
23 assessed to each party. Any party may apply to the Court within
24 15 days after the mailing of such final budget for a revision
25 thereof based on specific objections thereto. The parties hereto
26 shall make the payments otherwise required of them to the
27 Watermaster even though such a request for revision has been
28 filed with the Court. Upon any revision by the Court the

1 Watermaster shall either remit to the parties their prorata
2 portions of any reduction in the budget, or credit their accounts
3 with respect to their budget assessments for the next ensuing
4 Administrative year, as the Court shall direct.

5 The amount to be assessed to each party shall be
6 determined as follows: If that portion of the final budget to be
7 assessed to the parties is equal to or less than \$20.00 per party
8 then the cost shall be equally apportioned among the parties. If
9 that portion of the final budget to be assessed to parties is
10 greater than \$20.00 per party then each party shall be assessed a
11 minimum of \$20.00. The amount of revenue expected to be received
12 through the foregoing minimum assessments shall be deducted from
13 that portion of the final budget to be assessed to the parties
14 and the balance shall be assessed to the parties having Allowed
15 Pumping Allocations, such balance being divided among them
16 proportionately in accordance with their respective Allowed
17 Pumping Allocations.

18 Payment of the assessment provided for herein, subject
19 to adjustment by the Court as provided, shall be made by each
20 such party prior to beginning of the Administrative year to which
21 the assessment relates, or within 40 days after the mailing of
22 the tentative budget, whichever is later. If such payment by any
23 party is not made on or before said date, the Watermaster shall
24 add a penalty of 5% thereof to such party's statement. Payment
25 required of any party hereunder may be enforced by execution
26 issued out of the Court, or as may be provided by order herein-
27 after made by the Court, or by other proceedings by the
28 Watermaster or by any party hereto on the Watermaster's behalf.

1 Any money unexpended at the end of any Administrative
2 year shall be applied to the budget of the next succeeding
3 Administrative year.

4 Notwithstanding the above, no part of the budget of the
5 Watermaster shall be assessed to the Plaintiff District or to any
6 party who has not extracted water from Central Basin for a period
7 of two successive Administrative years prior to the Administra-
8 tive year in which the tentative budget should be mailed by the
9 Watermaster under the provisions of this subparagraph (e).

10 (f) Rules. The Watermaster may adopt and amend
11 from time to time such rules as may be reasonably necessary to
12 carry out its duties, powers and responsibilities under the
13 provisions of this judgment. The rules shall be effective on
14 such date after the mailing thereof to the parties as is
15 specified by the Watermaster, but not sooner than 30 days after
16 such mailing.

17 2. Use of Facilities and Data Collected by Other
18 Governmental Agencies. The Watermaster is directed not to
19 duplicate the collection of data relative to conditions of the
20 Central Basin which is then being collected by one or more
21 governmental agencies, but where necessary the Watermaster may
22 collect supplemental data. Where it appears more economical to
23 do so, the Watermaster is directed to use such facilities of
24 other governmental agencies as are available to it under either
25 no cost or cost agreements with respect to the receipt of
26 reports, billings to parties, mailings to parties, and similar
27 matters.
28

1 3. Appeal from Watermaster Decisions Other Than With
2 Respect to Budget. Any party interested therein who has
3 objection to any rule, determination, order or finding made by
4 the Watermaster, may make objection thereto in writing delivered
5 to the Watermaster within 30 days after the date the Watermaster
6 mails written notice of the making of such rule, determination,
7 order or finding, and within 30 days after such delivery the
8 Watermaster shall consider said objection and shall amend or
9 affirm his rule, determination, order or finding and shall give
10 notice thereof to all parties. Any such party may file with the
11 Court within 30 days from the date of said notice any objection
12 to such rule, determination, order or finding of the Watermaster
13 and bring the same on for hearing before the Court at such time
14 as the Court may direct, after first having served said objection
15 upon all other parties. The Court may affirm, modify, amend or
16 overrule any such rule, determination, order or finding of the
17 Watermaster. The provisions of this paragraph shall not apply to
18 budgetary matters, as to which the appellate procedure has
19 heretofore been set forth. Any objection under this paragraph
20 shall not stay the rule, determination, order or finding of the
21 Watermaster. However, the Court, by ex parte order, may provide
22 for a stay thereof on application of any interested party on or
23 after the date that any such party delivers to the Watermaster
24 any written objection.

25 4. Effect of Non-Compliance by Watermaster With Time
26 Provisions. Failure of the Watermaster to perform any duty,
27 power or responsibility set forth in this judgment within the
28 time limitation herein set forth shall not deprive the

1 Watermaster of authority to subsequently discharge such duty,
2 power or responsibility, except to the extent that any such
3 failure by the Watermaster may have rendered some otherwise
4 required act by a party impossible.

5 III. PROVISIONS FOR PHYSICAL SOLUTION TO MEET THE WATER
6 REQUIREMENTS IN CENTRAL BASIN. In order to provide flexibility
7 to the injunction set forth in Part I of the judgment, and to
8 assist in a physical solution to meet water requirements in
9 Central Basin, the injunction so set forth is subject to the
10 following provisions.

11 A. Carryover of Portion of Allowed Pumping Allocation.

12 (1) Each party adjudged to have a Total Water
13 Right or water rights and who, during a particular
14 Administrative year, does not extract from Central Basin a
15 total quantity equal to such party's Allowed Pumping
16 Allocation for the particular Administrative year, less any
17 allocated subscriptions by such party to the Exchange Pool,
18 or plus any allocated requests by such party for purchase of
19 Exchange Pool water, is permitted to carry over (the "One
20 Year Carryover") from such Administrative year the right to
21 extract from Central Basin in the next succeeding
22 Administrative year so much of said total quantity as it did
23 not extract in the particular Administrative year, not to
24 exceed 20% of such party's Allowed Pumping Allocation, or 20
25 acre feet, whichever of said 20% or 20 acre feet is the
26 larger.

27 (2) Following the declaration of a Declared Water
28 Emergency and until the Declared Water Emergency ends either

1 by expiration or by resolution of the Board of Directors of
2 the Central and West Basin Water Replenishment District,
3 each party adjudged to have a Total Water Right or water
4 rights and who, during a particular Administrative year,
5 does not extract from Central Basin a total quantity equal
6 to such party's Allowed Pumping Allocation for the
7 particular Administrative year, less any allocated
8 subscriptions by such party to the Exchange Pool, or plus
9 any allocated requests by such party for purchase of
10 Exchange Pool water, is permitted to carry over (the
11 "Drought Carryover") from such Administrative year the right
12 to extract from Central Basin so much of said total quantity
13 as it did not extract during the period of the Declared
14 Water Emergency, to the extent such quantity exceeds the One
15 Year Carryover, not to exceed an additional 35% of such
16 party's Allowed Pumping Allocation, or additional 35 acre
17 feet, whichever of said 35% or 35 acre feet is the larger.
18 Carryover amounts shall first be allocated to the One Year
19 Carryover and any remaining carryover amount for that year
20 shall be allocated to the Drought Carryover.

21 (3) No further amounts shall be added to the
22 Drought Carryover following the end of the Declared Water
23 Emergency, provided however that in the event another
24 Declared Water Emergency is declared, additional Drought
25 Carryover may be added, to the extent such additional
26 Drought Carryover would not cause the total Drought
27 Carryover to exceed the limits set forth above.
28

1 (4) The Drought Carryover shall be supplemental
2 to and shall not affect any previous drought carryover
3 acquired by a party pursuant to previous order of the court.

4 B. When Over-extractions May be Permitted.

5 1. Underestimation of Requirements for Water. Any
6 party hereto having an Allowed Pumping Allocation and not in
7 violation of any provision of this judgment may extract in an
8 Administrative year an additional quantity of water not to
9 exceed: (a) 20% of such party's Allowed Pumping Allocation or 20
10 acre feet, whichever is greater, and (b) any amount in addition
11 thereto which may be approved in advance by the Watermaster.

12 2. Reductions in Allowed Pumping Allocations in
13 Succeeding Years to Compensate for Permissible Overextractions.
14 Any such party's Allowed Pumping Allocation for the following
15 Administrative year shall be reduced by the amount over-extracted
16 pursuant to paragraph 1 above, provided that if the Watermaster
17 determines that such reduction in the party's Allowed Pumping
18 Allocation in one Administrative year will impose upon such a
19 party an unreasonable hardship, the said reduction in said
20 party's Allowed Pumping Allocation shall be prorated over a
21 period of five (5) Administrative years succeeding that in which
22 the excessive extractions by the party occurred. Application for
23 such relief to the Watermaster must be made not later than the
24 40th day after the end of the Administrative year in which such
25 excessive pumping occurred. Watermaster shall grant such relief
26 if such over-extraction, or any portion thereof, occurred during
27 a period of Declared Water Emergency.
28

1 3. Reductions in Allowed Pumping Allocations for the
2 Next Succeeding Administrative Year to Compensate for
3 Overpumping. Whenever a party over-extracts in excess of 20% of
4 such party's Allowed Pumping Allocation, or 20 acre feet,
5 whichever is greater, and such excess has not been approved in
6 advance by the Watermaster, then such party's Allowed Pumping
7 Allocation for the following Administrative year shall be reduced
8 by an amount equivalent to its total over-extractions in the
9 particular Administrative year in which it occurred.

10 4. Reports of Certain Over-extractions to the Court.
11 Whenever a party over-extracts in excess of 20% of such party's
12 Allowed Pumping Allocation, or 20 acre feet, whichever is
13 greater, without having obtained prior approval of the
14 Watermaster, such shall constitute a violation of the judgment
15 and the Watermaster shall make a written report to the Court for
16 such action as the Court may deem necessary. Such party shall be
17 subject to such injunctive and other processes and action as the
18 Court might otherwise take with regard to any other violation of
19 such judgment.

20 5. Effect of Over-extractions on Rights. Any
21 party who over-extracts from Central Basin in any Administrative
22 year shall not acquire any additional rights by reason of such
23 over-extractions; nor, shall any required reductions in
24 extractions during any subsequent years reduce the Total Water
25 Right or water rights of any party to the extent said over-
26 extractions are in compliance with paragraph 1 above.

27 6. Pumping Under Agreement With Plaintiff During
28 Periods of Emergency. Plaintiff overlies Central Basin and

1 engages in activities of replenishing the ground waters thereof.
2 Plaintiff by resolution has appropriated for use during
3 emergencies the quantity of 17,000 acre feet of imported and
4 reclaimed water replenished by it into Central Basin, and
5 pursuant to such resolution Plaintiff reserves the right to use
6 or cause the use of such quantity during such emergency periods.

7 (a) Notwithstanding any other provision of this
8 judgment, parties who are water purveyors (including successors
9 in interest) are authorized to enter into agreements with
10 Plaintiff under which such water purveyors may exceed their
11 respective Allowed Pumping Allocations for the particular
12 administrative year when the following conditions are met:

13 (1) Plaintiff is in receipt of a resolution of the
14 Board of Directors of the Metropolitan Water District
15 of Southern California ("MWD") that there is an actual
16 or immediately threatened temporary shortage of MWD's
17 imported water supply compared to MWD's needs, or a
18 temporary inability to deliver MWD's imported water
19 supply throughout its area, which will be alleviated by
20 overpumping from Central Basin.

21 (2) The Board of Directors of both Plaintiff and
22 Central Basin Municipal Water District by resolutions
23 concur in the resolution of MWD's Board of Directors,
24 and the Board of Directors of Plaintiff finds in its
25 resolution that the average minimum elevation of water
26 surface among those wells in the Montebello Forebay of
27 the Central Basin designated as Los Angeles County
28 Flood Control District Wells Nos. 1601T, 1564P, 1615P,

1 and 1626L, is at least 43.7 feet above sea level. This
2 computation shall be based upon the most recent "static
3 readings" taken, which shall have been taken not more
4 than four weeks prior. Should any of the wells
5 designated above become destroyed or otherwise be in a
6 condition so that readings cannot be made, or the owner
7 prevent their use for such readings the Board of
8 Directors of the Plaintiff may, upon appropriate
9 engineering recommendation substitute such other well
10 or wells as it may deem appropriate.

11 (3) In said resolution, Plaintiff's Board of Directors
12 sets a public hearing, and notice of the time, place
13 and date thereof (which may be continued from time to
14 time without further notice) is given by First Class
15 Mail to the current designees of the parties, filed and
16 served in accordance with Part V, paragraph 3 of this
17 Judgment. Said notice shall be mailed at least five
18 (5) days before the scheduled hearing date.

19 (4) At said public hearing, parties (including succes-
20 sors in interest) are given full opportunity to be
21 heard, and at the conclusion thereof the Board of
22 Directors of Plaintiff by resolution decides to proceed
23 with agreements under this Part III-B.

24 (5) For purposes of this Part III-B, "water purveyors"
25 mean those parties (and successors in interest) which
26 sell water to the public whether regulated public
27 utilities, mutual water companies or public entities,
28 which have a connection or connections for the taking

1 of imported water of MWD, or access to imported water
2 of MWD through a connection, and which normally supply
3 part of their customer's needs with such imported
4 water.

5 (b) All such agreements shall be subject to the fol-
6 lowing requirements, and such others as Plaintiff's Board of
7 Directors shall require:

8 (1) They shall be of uniform content except as to
9 quantity involved, and any special provisions
10 considered necessary or desirable with respect to local
11 hydrological conditions or good hydrologic practice.

12 (2) They shall be offered to all water purveyors,
13 excepting those which Plaintiff's Board of Directors
14 determine should not over pump because such over
15 pumping would occur in undesirable proximity to a sea
16 water barrier project designed to forestall sea water
17 intrusion, or within or in undesirable proximity to an
18 area within Central Basin wherein groundwater levels
19 are at an elevation where over pumping is under all the
20 circumstances then undesirable.

21 (3) The maximum terms for the agreements shall be four
22 months, which agreements shall commence on the same
23 date and end on the same date (and which may be
24 executed at any time within the four month period),
25 unless an extension thereof is authorized by the Court,
26 under Part IV of this judgment.

27 (4) They shall contain provisions that the water
28 purveyor executing the agreement pay to the Plaintiff a

1 price in addition to the applicable replenishment
2 assessment determined on the following formula. The
3 normal price per acre-foot of Central Basin Municipal
4 Water District's (CBMWD) treated domestic and municipal
5 water, as "normal" price of such category of water is
6 defined in Part C, paragraph 10 (price to be paid for
7 Exchange Pool Water) as of the beginning of the
8 contract term less the deductions set forth in said
9 paragraph 10 for the administrative year in which the
10 contract term commences. The agreement shall provide
11 for adjustments in the first of said components for any
12 proportional period of the contract term during which
13 the CBMWD said normal price is changed, and if the
14 agreement straddles two administrative years, the said
15 deductions shall be adjusted for any proportionate
16 period of the contract term in which the amount thereof
17 or of either subcomponent changes for purposes of said
18 paragraph 10. Any price for a partial acre-foot shall
19 be computed prorata. Payments shall be due and payable
20 on the principle that over extractions under the
21 agreement are of the last water pumped in the fiscal
22 year, and shall be payable as the agreement shall
23 provide.

24 (5) They shall contain provisions that:

25 (a) All of such agreements (but not less than all)
26 shall be subject to termination by Plaintiff if, in the
27 Judgment of Plaintiff's Board of Directors, the
28 conditions or threatened conditions upon which they

1 were based have abated to the extent over extractions
2 are no longer considered necessary; and (b) that any
3 individual agreement or agreements may be terminated if
4 the Plaintiff's Board of Directors finds that adverse
5 hydrologic circumstances have developed as a result of
6 over extractions by any water purveyor or purveyors
7 which have executed said agreements, or for any other
8 reason that Plaintiff's Board of Directors finds good
9 and sufficient.

10 (c) Other matters applicable to such agreements and
11 over pumping thereunder are as follows, without need for express
12 provisions in the agreements;

13 (1) The quantity of over pumping permitted shall be
14 additional to that which the water purveyor could
15 otherwise over pump under this Judgment.

16 (2) The total quantity of permitted over pumping under
17 all said agreements during said four months shall not
18 exceed Seventeen thousand (17,000) acre feet, but the
19 individual water purveyor shall not be responsible or
20 affected by any violation of this requirement. That
21 total is additional to over extractions otherwise
22 permitted under this Judgment.

23 (3) Only one four month period may be utilized by
24 Plaintiff in entering into such agreements, as to any
25 one emergency or continuation thereof declared by MWD's
26 Board of Directors under paragraph 6(a).

27 (4) Plaintiff may utilize the ex parte provisions of
28 Part IV of this Judgment in lieu of the authority

1 contained herein (which ex parte provisions are not
2 limited as to time, nature of relief, or terms of any
3 agreements), but neither Plaintiff nor any other party
4 shall utilize both as to any one such emergency or
5 continuation thereof.

6 (5) If any party claims it is being damaged or
7 threatened with damage by the over extractions by any
8 party to such an agreement, the first party or the
9 Watermaster may seek appropriate action of the Court
10 for termination of any such agreement upon notice of
11 hearing to the party complaining, to the party to said
12 agreement, to the plaintiff, and to any parties who
13 have filed a request for special notice. Any
14 termination shall not affect the obligation of the
15 party to make payments under the agreement for over
16 extractions which did occur thereunder.

17 (6) Plaintiff shall maintain separate accounting of
18 the proceeds from payments made pursuant to agreements
19 entered into under this part. Said fund shall be
20 utilized solely for purposes of replenishment in
21 replacement of waters in Central Basin and West Basin.
22 Plaintiff shall as soon as practicable cause replenish-
23 ment in Central Basin by the amounts to be overproduced
24 pursuant to this Paragraph 6 commencing at Page 63,
25 whether through spreading, injection, or in lieu
26 agreements.

27 (7) Over extractions pursuant to the agreements shall
28 not be subject to the "make up" provisions of the

1 Judgment as amended, provided that if any party fails
2 to make payments as required by the agreement,
3 Plaintiff may require such "make up" under Paragraph 3,
4 Subpart B, Part III of the Judgment (Page 62).

5 (8) Water Purveyor under any such agreement may, and
6 is encouraged to enter into appropriate arrangements
7 with customers who have water rights in Central Basin
8 under or pursuant to this Judgment whereby the Water
9 Purveyor will be assisted in meeting the objectives of
10 the agreement.

11 (9) Nothing in this Paragraph 6 limits the exercise of
12 the reserved jurisdiction of the court except as
13 provided in subparagraph (c) (4) above.

14 7. Exemption for Extractors of Contaminated
15 Groundwater. Any party herein may petition the Replenishment
16 District for a Non-consumptive Water Use Permit as part of a
17 project to remedy or ameliorate groundwater contamination. If
18 the petition is granted as set forth in this part, the petitioner
19 may extract the groundwater as permitted hereinafter, without the
20 production counting against the petitioner's production rights.

21 (a) If the Board of the Replenishment District
22 determines by Resolution that there is a problem of groundwater
23 contamination that a proposed program will remedy or ameliorate,
24 an operator may make extractions of groundwater to remedy or
25 ameliorate that problem without the production counting against
26 the petitioner's production rights if the water is not applied to
27 beneficial surface use, its extractions are made in compliance
28 with all the terms and conditions of the Board Resolution, and

1 the Board has determined in the Resolution either of the
2 following:

3 (1) The groundwater to be extracted is unusable and
4 cannot be economically treated or blended for use with
5 other water.

6 (2) The proposed program involves extraction of usable
7 water in the same quantity as will be returned to the
8 underground without degradation of quality.

9 (b) The Resolution may provide those terms and
10 conditions the Board deems appropriate, including, but not
11 limited to, restrictions on the quantity of the extractions to be
12 so exempted, limitations on time, periodic reviews, requirement
13 of submission of test results from a Board-approved laboratory,
14 and any other relevant terms or conditions.

15 (c) Upon written notice to the operator involved, the
16 Board may rescind or modify its Resolution. The rescission or
17 modification of the Resolution shall apply to groundwater
18 extractions occurring more than ten days after the rescission or
19 modification. Notice of rescission or modification shall be
20 either mailed first class mail, postage prepaid, at least two
21 weeks prior to the meeting of the Board at which the rescission
22 or modification will be made to the address of record of the
23 operator or personally delivered two weeks prior to the meeting.

24 (d) The Board's decision to grant, deny, modify or
25 revoke a permit or to interrupt or stop a permitted project may
26 be appealed to this court within thirty days of the notice
27 thereof to the applicant and upon thirty days notice to the
28 designees of all parties herein.

1 (e) The Replenishment District shall monitor and
2 periodically inspect the project for compliance with the terms
3 and conditions for any permit issued pursuant to these
4 provisions.

5 (f) No party shall recover costs from any other party
6 herein ⁱⁿ ~~on~~ connection with ^{determinations} ~~determinators~~ made with respect to this
7 part.

8 C. Exchange Pool Provisions.

9 (1) Definitions.

10 For purposes of these Exchange Pool provisions, the
11 following words and terms have the following meanings:

12 (a) "Exchange Pool" is the arrangement hereinafter set
13 forth whereby certain of the parties, ("Exchangees") may,
14 notwithstanding the other provisions of the judgment, extract
15 additional water from Central Basin to meet their needs, and
16 certain other of the parties ("Exchangors"), reduce their
17 extractions below their Allowed Pumping Allocations in order to
18 permit such additional extractions by others.

19 (b) "Exchangor" is one who offers, voluntarily or
20 otherwise, pursuant to subsequent provisions, to reduce its
21 extractions below its Allowed Pumping Allocation in order to
22 permit such additional extractions by others.

23 (c) "Exchangee" is one who requests permission to
24 extract additional water from Central Basin.

25 (d) "Undue hardship" means unusual and severe economic
26 or operational hardship, other than that arising (i) by reason of
27 any differential in quality that might exist between water
28 extracted from Central Basin and water available for importation

1 or (ii) by reason of any difference in cost to a party in
2 subscribing to the Exchange Pool and reducing its extractions of
3 water from Central Basin in an equivalent amount as opposed to
4 extracting any such quantity itself.

5 2. Parties Who May Purchase Water Through the Exchange
6 Pool. Any party not having existing facilities for the taking of
7 imported water as of the beginning of any Administrative year,
8 and any party having such facilities as of the beginning of any
9 Administrative year who is unable, without undue hardship, to
10 obtain, take, and put to beneficial use, through its distribution
11 system or systems existing as of the beginning of the particular
12 Administrative year, imported water in a quantity which, when
13 added to its Allowed Pumping Allocation for that particular
14 Administrative year, will meet its estimated needs for that
15 particular Administrative year, may purchase water from the
16 Exchange Pool, subject to the limitations contained in this
17 Subpart C of this Part III (Subpart "C" hereinafter).

18 3. Procedure for Purchasing Exchange Pool Water. Not
19 later than the 40th day following the commencement of each
20 Administrative year, each such party desiring to purchase water
21 from the Exchange Pool shall file with the Watermaster a request
22 to so purchase, setting forth the amount of water in acre feet
23 that such party estimates that it will require during the then
24 current Administrative year in excess of the total of:

25 (a) Its Allowed Pumping Allocation for that particular
26 Administrative year; and

27 (b) The imported water, if any, which it estimates it
28 will be able, without undue hardship, to obtain, take and put to

1 beneficial use, through its distribution system or systems
2 existing as of the beginning of that particular Administrative
3 year.

4 Any party who as of the beginning of any Administrative
5 year has existing facilities for the taking of imported water and
6 who makes a request to purchase from the Exchange Pool must
7 provide with such request substantiating data and other proof
8 which, together with any further data and other proof requested
9 by the Watermaster, establishes that such party is unable without
10 undue hardship, to obtain, take and put to beneficial use through
11 its said distribution system or systems a sufficient quantity of
12 imported water which, when added to its said Allowed Pumping
13 Allocation for the particular Administrative year, will meet its
14 estimated needs. As to any such party, the Watermaster shall
15 make a determination whether the party has so established such
16 inability, which determination shall be subject to review by the
17 court under the procedure set forth in Part II of this judgment.
18 Any party making a request to purchase from the Exchange Pool
19 shall either furnish such substantiating data and other proof, or
20 a statement that such party had no existing facilities for the
21 taking of imported water as of the beginning of that
22 Administrative year, and in either event a statement of the basis
23 for the quantity requested to be purchased.

24 4. Subscriptions to Exchange Pool.

25 (a) Required Subscription. Each party having existing
26 facilities for the taking of imported water as of the beginning
27 of any Administrative year hereby subscribed to the Exchange Pool
28 for purposes of meeting Category (a) requests thereon, as more

1 particularly defined in paragraph 5 of this Subpart C, twenty
2 percent (20%) of its Allowed Pumping Allocation, or the quantity
3 of imported water which it is able, without undue hardship, to
4 obtain, take and put to beneficial use through its distribution
5 system or systems existing as of the beginning of the particular
6 Administrative year in addition to such party's own estimated
7 needs for imported water during that water year, whichever is the
8 lesser. A party's subscription under this subparagraph (a) and
9 subparagraph (b) of this paragraph 4 is sometimes hereinafter
10 referred to as a 'required subscription'.

11 (b) Report to Watermaster by Parties with Connections
12 and Unable to Subscribe 20%. Any party having existing
13 facilities for the taking of imported water and estimating that
14 it will be unable, without undue hardship, in that Administrative
15 year to obtain, take and put to beneficial use through its
16 distribution system or systems existing as of the beginning of
17 that Administrative year, sufficient imported water to further
18 reduce its extractions from the Central Basin by twenty percent
19 (20%) of its Allowed Pumping Allocation for purposes of providing
20 water to the Exchange Pool must furnish not later than the 40th
21 day following the commencement of such Administrative year sub-
22 stantiating data and other proof which, together with any further
23 data and other proof requested by the Watermaster, establishes
24 said inability or such party shall be deemed to have subscribed
25 twenty percent (20%) of its Allowed Pumping Allocation for the
26 purpose of providing water to the Exchange Pool. As to any such
27 party so contending such inability, the Watermaster shall make a
28 determination whether the party has so established such

1 inability, which determination shall be subject to review by the
2 Court under the procedure set forth in Part II of this judgment.

3 (c) Voluntary Subscriptions. Any party, whether or
4 not having facilities for the taking of imported water, who
5 desires to subscribe to the Exchange Pool a quantity or further
6 quantity of its Allowed Pumping Allocation, may so notify the
7 Watermaster in writing of the quantity of such offer on or prior
8 to the 40th day following the commencement of the particular
9 Administrative year. Such subscriptions are referred to
10 hereinafter as "voluntary subscriptions." Any Exchangor who
11 desires that any part of its otherwise required subscription not
12 needed to fill Category (a) requests shall be available for
13 Category (b) requests may so notify the Watermaster in writing on
14 or prior to said 40th day. If all of that Exchangor's otherwise
15 required subscription is not needed in order to fill Category (a)
16 requests, the remainder of such required subscription not so
17 used, or such part thereof as such Exchangor may designate, shall
18 be deemed to be a voluntary subscription.

19 5. Limitations on Purchases of Exchange Pool Water and
20 Allocation of Requests to Purchase Exchange Pool Water Among
21 Exchangors.

22 (a) Categories of Requests. Two categories of
23 Exchange Pool requests are established as follows:

24 (1) Category (a) requests. The quantity requested by
25 each Exchangee, whether or not that Exchangee has an Allowed
26 Pumping Allocation, which quantity is not in excess of 150% of
27 its Allowed Pumping Allocation, if any, or 100 acre feet,
28 whichever is greater. Requests or portions thereof within the

1 above criteria are sometimes hereinafter referred to as "Category
2 (a) requests."

3 (2) Category (b) requests. The quantity requested by
4 each Exchangee having an Allowed Pumping Allocation to the extent
5 the request is in excess of 150% of that Allowed Pumping Alloca-
6 tion or 100 acre feet, whichever is greater, and the quantity
7 requested by each Exchangee having no Allowed Pumping Allocation
8 to the extent the request is in excess of 100 acre feet.

9 Portions of requests within the above criteria are sometimes
10 hereinafter referred to as "Category (b) requests."

11 (b) Filling of Category (a) Requests. All Exchange
12 Pool subscriptions, required and voluntary, shall be available to
13 fill Category (a) requests. Category (a) requests shall be
14 filled first from voluntary subscriptions, and if voluntary
15 subscriptions should be insufficient to fill all Category (a)
16 requests required subscriptions shall be then utilized to fill
17 Category (a) requests. All Category (a) requests shall be first
18 filled before any Category (b) requests are filled.

19 (c) Filling of Category (b) Requests. To the extent
20 that voluntary subscriptions have not been utilized in filling
21 Category (a) requests, Category (b) requests shall be filled only
22 out of any remaining voluntary subscriptions. Required subscrip-
23 tions will then be utilized for the filling of any remaining
24 Category (b) requests.

25 (d) Allocation of Requests to Subscriptions When
26 Available Subscriptions Exceed Requests. In the event the
27 quantity of subscriptions available for any category of requests
28 exceeds those requests in that category, or exceeds the remainder

1 of those requests in that category, such requests shall be filled
2 out of such subscriptions proportionately in relation to the
3 quantity of each subscription.

4 (e) Allocation of Subscriptions to Category (b)
5 Requests in the Event of Shortage of Subscriptions. In the event
6 available subscriptions are insufficient to meet Category (b)
7 requests, available subscriptions shall be allocated to each
8 request in the proportion that the particular request bears to
9 the total requests of the particular category.

10 6. Additional Voluntary Subscriptions. If subscrip-
11 tions available to meet the requests of Exchangees are insuffi-
12 cient to meet all requests, additional voluntary subscriptions
13 may be solicited and received from parties by the Watermaster.
14 Such additional subscriptions shall be allocated first to
15 Category (a) requests to the extent unfilled, and next to
16 Category (b) requests to the extent unfilled. All allocations
17 are to be otherwise in the same manner as earlier provided in
18 paragraph 5 (a) through 5 (e) inclusive.

19 7. Effect if Category (a) Requests Exceed Available
20 Subscriptions, Both Required and Voluntary. In the event that
21 the quantity of subscriptions available to fill Category (a)
22 requests is less than the total quantity of such requests, the
23 Exchangees may, nonetheless, extract the full amount of their
24 Category (a) requests otherwise approved by the Watermaster as if
25 sufficient subscriptions were available. The amounts received by
26 the Watermaster on account of that portion of the approved
27 requests in excess of the total quantities available from
28 Exchangors shall either be paid by the Watermaster to Central &

1 West Basin Water Replenishment District in trust for the purpose
2 of purchasing imported water and spreading the same in Central
3 Basin for replenishment thereof, or credited to an account of
4 said Plaintiff District on the books of the Watermaster, at the
5 option of said Plaintiff District. Thereafter said Plaintiff
6 District may, at any time, withdraw said funds or any part
7 thereof so credited in trust for the aforesaid purpose, or may by
8 the 40th day of any Administrative year notify the Watermaster
9 that it desires all or any portion of said funds to be expended
10 by the Watermaster for the purchase of water available from
11 subscriptions by Exchangors in the event the total quantity of
12 such subscriptions exceeds the total quantity of approved
13 requests by parties to purchase Exchange Pool water. To the
14 extent that there is such an excess of available subscriptions
15 over requests and to the extent that the existing credit in favor
16 of Plaintiff District is sufficient to purchase such excess
17 quantity at the price established for Exchange Pool purchases
18 during that Administrative year, the account of the Plaintiff
19 District shall be debited and the money shall be paid to the
20 Exchangors in the same manner as if another party had made such
21 purchase as an Exchangee. The Plaintiff District shall not
22 extract any such Exchange Pool water so purchased.

23 8. Additional Pumping by Exchangees Pursuant to
24 Exchange Pool Provisions. An Exchangee may extract from Central
25 Basin in addition to its Allowed Pumping Allocation for a
26 particular Administrative year that quantity of water which it
27 has requested to purchase from the Exchange Pool during that
28 Administrative year and which has been allocated to it pursuant

1 to the provisions of paragraphs 5, 6 and 7. The first pumping by
2 an Exchangee in any Administrative year shall be deemed to be
3 pumping of the party's allocation of Exchange Pool water.

4 9. Reduction in Pumping by Exchangors. Each Exchangor
5 shall in each Administrative year reduce its extractions of water
6 from Central Basin below its Allowed Pumping Allocation for the
7 particular year in a quantity equal to the quantity of Exchange
8 Pool requests allocated to it pursuant to the provisions of
9 paragraphs 4, 5, 6 and 7 of this Subpart C.

10 10. Price to be Paid for Exchange Pool Water. The
11 price to be paid by Exchangees and to be paid to Exchangors per
12 acre foot for required and voluntary subscriptions of Exchangors
13 utilized to fill requests on the Exchange Pool by Exchangees
14 shall be the dollar amount computed as follows by the Watermaster
15 for each Administrative year. The "normal" price as of the
16 beginning of the Administrative year charged by Central Basin
17 Municipal Water District (CBMWD) for treated MWD (Metropolitan
18 Water District of Southern California) water used for domestic
19 and municipal purposes shall be determined, and if on that date
20 there are any changes scheduled during that Administrative year
21 in CBMWD's "normal" price for such category of water, the
22 weighted daily "normal" CBMWD price shall be determined and used
23 in lieu of the beginning such price; and there shall be deducted
24 from such beginning or weighted price, as the case may be, the
25 "incremental cost of pumping water in Central Basin" at the
26 beginning of the Administrative year and any then current rate or
27 rates, of assessments levied on the pumping of ground water in
28 Central Basin by Plaintiff District and any other governmental

1 agency. The "normal" price charged by CBMWD shall be the highest
2 price of CBMWD for normal service excluding any surcharge or
3 higher rate for emergency deliveries or otherwise failing to
4 comply with CBMWD rates and regulations relating to earlier
5 deliveries. The "incremental cost of pumping water in Central
6 Basin" as of the beginning of the Administrative year shall be
7 deemed to be the Southern California Edison Company Schedule No.
8 PA-1 rate per kilowatt-hour, including all adjustments and all
9 uniform authorized additions to the basic rate, multiplied by 560
10 kilowatt-hours per acre-foot, rounded to the nearest dollar
11 (which number of kilowatt-hours has been determined to represent
12 the average energy consumption to pump an acre-foot of water in
13 Central Basin). In applying said PA-1 rate the charge per
14 kilowatt-hour under the schedule shall be employed and if there
15 are any rate blocks then the last rate block shall be employed.
16 Should a change occur in Edison schedule designations, the
17 Watermaster shall employ that applicable to motors used for
18 pumping water by municipal utilities.

19 11. Carry-over of Exchange Pool Purchases by
20 Exchangees. An Exchangee who does not extract from Central Basin
21 in a particular Administrative year a quantity of water equal to
22 the total of (a) its Allowed Pumping Allocation for that
23 particular Administrative year, reduced by any authorized amount
24 of carry-over into the next succeeding Administrative year
25 pursuant to the provisions of Subpart A of Part III of this
26 judgment, and (b) the quantity that it purchased from the
27 Exchange Pool for that particular Administrative year, may carry
28 over into the next succeeding Administrative year the right to

1 extract from Central Basin a quantity equal to the difference
2 between said total and the quantity actually extracted in that
3 Administrative year, but not exceeding the quantity purchased
4 from the Exchange Pool for that Administrative year. Any such
5 carry-over shall be in addition to that provided in said Subpart
6 A of Part III.

7 If the 'Basinwide Average Exchange Pool Price' in
8 the next succeeding Administrative year exceeds the 'Exchange
9 Pool Price' in the previous Administrative year any such
10 Exchangee exercising such carry-over rights hereinabove provided
11 shall pay to the Watermaster, forthwith upon the determination of
12 the 'Exchange Pool Price' in said succeeding Administrative year,
13 and as a condition to such carry-over rights, an additional
14 amount determined by multiplying the number of acre feet of
15 carry-over by the difference in 'Exchange Pool Price' as between
16 the two Administrative years. Such additional payment shall be
17 miscellaneous income to the Watermaster which shall be applied by
18 him against that share of the Watermaster's budget to be paid by
19 the parties to this Agreement for the second Administrative year
20 succeeding that in which the Exchange Pool water was so
21 purchased.

22 12. Notification by Watermaster to Exchangors and
23 Exchangees of Exchange Pool Requests and Allocations Thereof and
24 Price of Exchange Pool Water. Not later than the 65th day after
25 the commencement of each Administrative year, the Watermaster
26 shall determine and notify all Exchangors and Exchangees of the
27 total of the allocated requests for Exchange Pool water and shall
28 provide a schedule divided into categories of requests showing

1 the quantity allocated to each Exchangee and a schedule of the
2 allocation of the total Exchange Pool requirements among the
3 Exchangors. Such notification shall also advise Exchangors and
4 Exchangees of the prices to be paid to Exchangors for
5 subscriptions utilized and the Exchange Pool Price for that
6 Administrative year as determined by the Watermaster. The
7 determinations of the Watermaster in this regard shall be subject
8 to review by the Court in accordance with the procedure set forth
9 in Part II of this judgment.

10 13. Payment by Exchangees. Each Exchangee shall, on
11 or prior to last day of the third month of each Administrative
12 year, pay to the Watermaster one-quarter of said price per acre-
13 foot multiplied by the number of acre feet of such party's
14 approved request and shall, on or before the last day of each of
15 the next succeeding three months, pay a like sum to the
16 Watermaster. Such amounts must be paid by each Exchangee
17 regardless of whether or not it in fact extracts or uses any of
18 the water it has requested to purchase from the Exchange Pool.

19 14. Payments to Exchangors. As soon as possible after
20 receipt of moneys from Exchangees, the Watermaster shall remit to
21 the Exchangors their prorata portions of the amount so received
22 in accordance with the provisions of paragraph 10 above.

23 15. Delinquent Payments. Any amounts not paid on or
24 prior to any due date above shall carry interest at the rate of
25 1% per month or any part of a month. Any amounts required to be
26 so paid may be enforced by the equitable powers of the Court,
27 including, but not limited to, the injunctive process of the
28 Court. In addition thereto, the Watermaster, as Trustee for the

1 Exchangors, may enforce such payment by any appropriate legal
2 action, and shall be entitled to recover as additional damages
3 reasonable attorneys' fees incurred in connection therewith. If
4 any Exchangee shall fail to make any payments required of it on
5 or before 30 days after the last payment is due, including any
6 accrued interest, said party shall thenceforward not be entitled
7 to purchase water from the Exchange Pool in any succeeding
8 Administrative year except upon order of the Court, upon such
9 conditions as the Court may impose.

10 IV. CONTINUING JURISDICTION OF THE COURT.

11 The Court hereby reserves continuing jurisdiction and
12 upon application of any interested party, or upon its own motion,
13 may review and redetermine the following matters and any matters
14 incident thereto:

15 (a) Its determination of the permissible level of
16 extractions from Central Basin in relation to achieving a
17 balanced basin and an economic utilization of Central Basin for
18 ground water storage, taking into account any then anticipated
19 artificial replenishment of Central Basin by governmental
20 agencies for the purpose of alleviating what would otherwise be
21 annual overdrafts upon Central Basin and all other relevant
22 factors.

23 (b) Whether in accordance with applicable law any
24 party has lost all or any portion of his rights to extract ground
25 water from Central Basin and, if so, to ratably adjust the
26 Allowed Pumping Allocations of the other parties and ratably
27 thereto any remaining Allowed Pumping Allocation of such party.
28

1 (c) To remove any Watermaster appointed from time to
2 time and appoint a new Watermaster; and to review and revise the
3 duties, powers and responsibilities of the Watermaster and to
4 make such other and further provisions and orders of the Court
5 that may be necessary or desirable for the adequate admini-
6 stration and enforcement of the judgment.

7 (d) To revise the price to be paid by Exchangees and
8 to Exchangors for Exchange Pool purchases and subscriptions.

9 (e) In case of emergency or necessity, to permit
10 extractions from Central Basin for such periods as the Court may
11 determine: (i) ratably in excess of the Allowed Pumping
12 Allocations of the parties; or (ii) on a non-ratable basis by
13 certain parties if either compensation or other equitable
14 adjustment for the benefit of the other parties is provided.
15 Such overextractions may be permitted not only for emergency and
16 necessity arising within Central Basin area, but to assist the
17 remainder of the areas within The Metropolitan Water District of
18 Southern California in the event of temporary shortage or
19 threatened temporary shortage of its imported water supply, or
20 temporary inability to deliver the same throughout its area, but
21 only if the court is reasonably satisfied that no party will be
22 irreparably damaged thereby. Increased energy cost for pumping
23 shall not be deemed irreparable damage. Provided, however, that
24 the provisions of this subparagraph will apply only if the
25 temporary shortage, threatened temporary shortage, or temporary
26 inability to deliver was either not reasonably avoidable by the
27 Metropolitan Water District, or if reasonably avoidable, good
28 reason existed for not taking the steps necessary to avoid it.

1 (f) To review actions of the Watermaster.

2 (g) To assist the remainder of the areas within The
3 Metropolitan Water District of Southern California within the
4 parameter set forth in subparagraph (e) above.

5 (h) To provide for such other matters as are not
6 contemplated by the judgment and which might occur in the future,
7 and which if not provided for would defeat any or all of the
8 purposes of this judgment to assure a balanced Central Basin
9 subject to the requirements of Central Basin Area for water
10 required for its needs, growth and development.

11 The exercise of such continuing jurisdiction shall be
12 after 30 days notice to the parties, with the exception of the
13 exercise of such continuing jurisdiction in relation to
14 subparagraphs (e) and (g) above, which may be ex parte, in which
15 event the matter shall be forthwith reviewed either upon the
16 Court's own motion or the motion of any party upon which 30 days
17 notice shall be so given. Within ten (10) days of obtaining any
18 ex parte order, the party so obtaining the same shall mail notice
19 thereof to the other parties. If any other party desires Court
20 review thereof, the party obtaining the ex parte order shall bear
21 the reasonable expenses of mailing notice of the proceedings, or
22 may in lieu thereof undertake the mailing. Any contrary or
23 modified decision upon such review shall not prejudice any party
24 who relied on said ex parte order.

25 V. GENERAL PROVISIONS.

26 1. Judgment Constitutes Inter Se Adjudication. This
27 judgment constitutes an inter se adjudication of the respective
28 rights of all parties, except as may be otherwise specifically

1 indicated in the listing of the rights of the parties at pages 12
2 through 52 of this judgment, or in Appendix "2" hereof.

3 2. Assignment, Transfer, Etc., of Rights. Subject to
4 the other provision of this judgment, and any rules and
5 regulations of the Watermaster requiring reports relative
6 thereto, nothing herein contained shall be deemed to prevent any
7 party hereto from assigning, transferring, licensing or leasing
8 all or any portion of such water rights as it may have with the
9 same force and effect as would otherwise be permissible under
10 applicable rules of law as exist from time to time.

11 3. Service Upon and Delivery to Parties of Various
12 Papers. Service of the judgment on those parties who have
13 executed that certain Stipulation and Agreement for Judgment or
14 who have filed a notice of election to be bound by the Exchange
15 Pool provisions shall be made by first class mail, postage
16 prepaid, addressed to the designee and at the address designated
17 for that purpose in the executed and filed Counterpart of the
18 Stipulation and Agreement for Judgment or in the executed and
19 filed "Notice of Election to be Bound by Exchange Pool
20 Provisions", as the case may be, or in any substitute designation
21 filed with the Court.

22 Each party who has not heretofore made such a
23 designation shall, within 30 days after the judgment shall have
24 been served upon that party, file with the Court, with proof of
25 service of a copy upon the Watermaster, a written designation of
26 the person to whom and the address at which all future notices,
27 determinations, requests, demands, objections, reports and other
28

1 papers and processes to be served upon that party or delivered to
2 that party are to be so served or delivered.

3 A later substitute designation filed and served in the
4 same manner by any party shall be effective from the date of
5 filing as to the then future notices, determinations, requests,
6 demands, objections, reports and other papers and processes to be
7 served upon or delivered to that party.

8 Delivery to or service upon any party by the
9 Watermaster, by any other party, or by the Court, or any item
10 required to be served upon or delivered to a party under or
11 pursuant to the judgment may be by deposit in the mail, first
12 class, postage prepaid, addressed to the designee and at the
13 address in the latest designation filed by that party.

14 4. Judgment Does Not Affect Rights, Powers, Etc., of
15 Plaintiff District. Nothing herein constitutes a determination
16 or adjudication which shall foreclose Plaintiff District from
17 exercising such rights, powers, privileges and prerogatives as it
18 may now have or may hereafter have by reason of provisions of
19 law.

20 5. Continuation of Order Under Interim Agreement. The
21 order of Court made pursuant to the "Stipulation and Interim
22 Agreement and Petition for Order" shall remain in effect through
23 the water year in which this judgment shall become final (subject
24 to the reserved jurisdiction of the Court).

25 6. Effect of: Extractions by Exchangees; Reductions
26 in Extractions. With regard to Exchange Pool purchases, the
27 first extractions by each Exchangee shall be deemed the
28 extractions of the quantities of water which that party is

1 entitled to extract pursuant to his allocation from the Exchange
2 Pool for that Administrative year. Each Exchangee shall be
3 deemed to have pumped his Exchange Pool request so allocated for
4 and on behalf of each Exchangor in proportion to each Exchangor's
5 subscription to the Exchange Pool which is utilized to meet
6 Exchange Pool requests. No Exchangor shall ever be deemed to
7 have relinquished or lost any of its rights determined in this
8 judgment by reason of allocated subscriptions to the Exchange
9 Pool. Each Exchangee shall be responsible as between Exchangors
10 and that Exchangee, for any tax or assessment upon the production
11 of ground water levied for replenishment purposes by the Central
12 and West Basin Water Replenishment District or by any other
13 governmental agency with respect to water extracted by such
14 Exchangee by reason of Exchange Pool allocations and purchases.
15 No Exchangor or Exchangee shall acquire any additional rights,
16 with respect to any party to this action, to extract waters from
17 Central Basin pursuant to Water Code Section 1005.1 by reason of
18 the obligations pursuant to and the operation of the Exchange
19 Pool.

20 7. Judgment Binding on Successors, Etc. This judgment
21 and all provisions thereof are applicable to and binding upon not
22 only the parties to this action, but as well to their respective
23 heirs, executors, administrators, successors, assigns, lessees,
24 licensees and to the agents, employees and attorneys in fact of
25 any such persons.

26 8. Costs. No party shall recover its costs herein as
27 against any other party.
28

1 9. Intervention of Successors in Interest and New
2 Parties. Any person who is not a party (including but not
3 limited to successors or parties who are bound by this judgment)
4 and who proposes to produce water from the basin or exercise
5 water rights of a predecessor may seek to become a party to this
6 Judgment through a Stipulation in Intervention entered into with
7 the Plaintiff. Plaintiff may execute said Stipulation on behalf
8 of the other parties herein, but such Stipulation shall not
9 preclude a party from opposing such intervention at the time of
10 the court hearing thereon. Said Stipulation for Intervention
11 must thereupon be filed with the Court, which will consider an
12 order confirming said intervention following thirty (30) days
13 notice to the parties. Thereafter, if approved by the Court,
14 such intervenor shall be a party bound by this Judgment and
15 entitled to the rights and privileges accorded under the physical
16 solution herein.

17 10. Effect of this Amended Judgment on Orders Filed
18 Herein. This Second Amended Judgment shall not abrogate such
19 rights of additional carry-over of unused water rights as may
20 otherwise exist pursuant to orders herein filed June 2, 1977 and
21 September 29, 1977.

22 THE CLERK WILL ENTER THIS SECOND AMENDED JUDGMENT FORTHWITH.

23
24 DATED: May 6, 1991

25
26 /s/ Florence T. Pickard
27 Judge of the Superior Court
28

Appendix C

Central Basin Amendment Decision

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Community Services

EDWARD J. CASEY (SBN 119571)

TAMMY L. JONES (SBN 232693)

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**[EXEMPT FROM FILING FEE
GOVERNMENT CODE § 6103]**

Attorneys for Plaintiff

**WATER REPLENISHMENT DISTRICT
OF SOUTHERN CALIFORNIA**

[Additional Counsel Listed On Next Page]

**SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF LOS ANGELES**

CENTRAL AND WEST BASIN WATER
REPLENISHMENT DISTRICT, etc.,

Plaintiff,

v.

CHARLES E. ADAMS, et al.,

Defendants.

Case No. C 786 656

(Assigned to the Honorable Holly Kendig –
Department 42)

**NOTICE OF COURT'S DECISION ON
FOUR JURSDICTIONAL MOTIONS IN
OPPOSITION TO MOTION TO AMEND
AND MOTION TO AMEND**

CITY OF LAKEWOOD, a municipal corporation,

Cross-Complainant,

v.

CHARLES E. ADAMS, et al.,

Cross-Defendants.

**NOTICE OF COURT'S DECISION ON FOUR JURSDICTIONAL MOTIONS IN OPPOSITION
TO MOTION TO AMEND AND MOTION TO AMEND**

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Defendant CITY OF LONG BEACH

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1 **TO: ALL PARTIES HEREIN, AND TO THEIR ATTORNEYS OF RECORD:**

2 PLEASE TAKE NOTICE that the Court issued on July 7, 2010 a Minute Order and a
3 Decision on Four Jurisdictional Motions in Opposition to Motion to Amend and Motion to Amend.
4 True and correct copies of the Minute Order and the Decision are attached hereto as Exhibits "A"
5 and "B", respectively.
6

7 DATED: July 13, 2010

8 EDWARD J. CASEY
9 TAMMY L. JONES
10 **ALSTON & BIRD LLP**

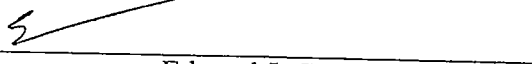
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12 _____
13 Edward J. Casey
14 Attorneys for Plaintiff Water Replenishment District
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EXHIBIT A

SUPERIOR COURT OF CALIFORNIA, COUNTY OF LOS ANGELES

DATE: 07/07/10

DEPT. 42

HONORABLE HOLLY E. KENDIG

JUDGE M. ARTIS

DEPUTY CLERK

HONORABLE

JUDGE PRO TEM

ELECTRONIC RECORDING MONITOR

R. LUNA, C/A

Deputy Sheriff NONE

Reporter

C786656

Plaintiff

Counsel

CENTRAL & WEST BASIN WATER

VS

Defendant

CHARLES E ADAMS

Counsel

unrelated from

C506806 9-29-09 170.6-Aragon -

re-assgn to D-42 for p/j (4-21-

NO APPEARANCES

NATURE OF PROCEEDINGS:

COURT ORDER

The Court's Decision on Four Jurisdictional Motions in Opposition to Motion to Amend and Motion to Amend is signed and filed this date.

Counsel for plaintiff, Water Replenishment District, is mailed a conformed copy of the aforementioned decision this date and is directed to give notice to all other parties.

CLERK'S CERTIFICATE OF MAILING/ NOTICE OF ENTRY OF ORDER

I, the below named Executive Officer/Clerk of the above-entitled court, do hereby certify that I am not a party to the cause herein, and that this date I served Notice of Entry of the above minute order of 07-07-2010 upon each party or counsel named below depositing in the United States mail at the courthouse in Los Angeles, California, one copy of the original entered herein in a separate sealed envelope for each, addressed as shown below with the postage thereon fully prepaid.

Date: 07-07-2010

John A. Clarke, Executive Officer/Clerk

MINUTES ENTERED 07/07/10 COUNTY CLERK
--

SUPERIOR COURT OF CALIFORNIA, COUNTY OF LOS ANGELES

DATE: 07/07/10

HONORABLE HOLLY E. KENDIG

JUDGE

M. ARTIS

DEPT. 42

HONORABLE

JUDGE PRO TEM

DEPUTY CLERK

ELECTRONIC RECORDING MONITOR

R. LUNA, C/A

Deputy Sheriff

NONE

Reporter

C786656

Plaintiff

Counsel

CENTRAL & WEST BASIN WATER

VS

Defendant

CHARLES E ADAMS

Counsel

unrelated from

C506806 9-29-09 170.6-Aragon -

re-assgn to D-42 for p/j (4-21-

NO APPEARANCES

NATURE OF PROCEEDINGS:

By:

Michael N. Artis

Edward J. Casey

ALSTON & BIRD, LLP

333 South Hope Street, 16th Floor

Los Angeles, California 90071

EXHIBIT B

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CONFORMED COPY
OF ORIGINAL FILED
Los Angeles County Superior Court

JUL - 7 2010

John A. Clarke, Executive Officer/Clerk
By M. Artis, Deputy

SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF LOS ANGELES

CENTRAL AND WEST BASIN WATER)
REPLINISHMENT DISTRICT, etc.)
Plaintiff,)
vs.)
CHARLES E. ADAMS, et al.,)
Defendants.)

Case No. C 786656

DECISION ON
FOUR JURISDICTIONAL
MOTIONS IN OPPOSITION
TO MOTION TO
AMEND AND MOTION TO AMEND

AND RELATED ACTIONS

Having received and considered the recently-decided case of *California American Water v. City of Seaside* (2010) 183 Cal. App. 4th 471 submitted by Golden State Water Company on April 7, 2010; having issued a tentative ruling on the four jurisdictional motions on May 12, 2010; having received additional proposals or corrections from Central Basin Municipal Water District, the Cities of Cerritos, Downey and Signal Hill on June 1, 2010; having received no objections to the additional proposals or corrections; and after further consideration of the issues, which were extensively briefed, and then argued over multiple days, up to and including March 15, 2010, this court makes the following final ruling:

1 **RULING ON OBJECTIONS TO THE DECLARATIONS OF GLANCY AND**
2 **WHITTAKER:**

3 In addition to the Central Basin Municipal Water District, the Cities of Cerritos,
4 Downey and Signal Hill also filed Objections to the Declarations of Glancy and Whittaker.
5 The Cities believe that the court did not rule on their objections on January 15, 2010.
6 Perhaps the court's ruling was not clear. The court intended to rule on all the objections to
7 those declarations at the same time. The record reflects that the court stated that "all the
8 evidentiary objections are well taken." Nonetheless, to avoid any debate or dispute, the
9 court hereby rules that the Cities' Objections to the Declarations of Glancy and Whittaker
10 are sustained.

11
12 **FINAL RULING ON JURISDICTIONAL MOTIONS:**

13
14 Having considered the briefs submitted by all parties and oral argument extending
15 over several different days, the court rules on the jurisdictional motions of the Cities of
16 Cerritos, Downey and Signal Hill, and the Central Basin Water Municipal Water District
17 (the "Jurisdictional Parties") as follows:

18
19 I. **Background:**

20
21 ° The Cities of Lakewood, Long Beach, Los Angeles, Huntington Park, and
22 Vernon, the Golden State Water Company, California Water Service Co., and the
23 Water Replenishment District of Southern California (hereinafter the "Moving
24 Parties") brought a motion to amend a judgment relating to water extraction rights in
25 the Central Basin. Out of approximately 132 parties to the Central Basin Judgment,
26 only eight of these parties filed the Motion to Amend.

27
28 ° The original judgment resulted from a case filed on January 2, 1962
("Judgment") by the Central and West Basin Water Replenishment District, now

1 Water Replenishment District ("WRD"). That action sought an adjudication of the
2 rights of the parties to extract groundwater from the Central Basin. In the original
3 complaint, the principal relief requested was a determination of each defendant's
4 groundwater extraction right and a permanent injunction against each defendant
5 from extracting more than its pro-rata percentage of the safe yield as determined by
6 the court as part of the adjudication. 2008 Watermaster Report at 33-34.
7

8 According to the Pre-Trial Conference Order in that case, the action was
9 "predicated upon an alleged overdraft of long continuing duration, and seeks not
10 only an adjudication of the parties *inter se* to extract groundwater from said Central
11 Basin, but also an injunction to eliminate extractions therefrom by parties
12 determined to have no rights, and to control the quantities of extractions by parties
13 determined to have rights." Notice of Lodging Filed in Support of Moving Parties
14 Supplemental Brief re: Law of the Case (hereinafter "Notice of Lodging"), Exhibit
15 A, page 2. The Pre-Trial Conference Order explained what was actually at issue in
16 the original action as follows: "While the Complaint and Cross-complaint originally
17 sought an injunction which would limit extractions to the safe yield of said Central
18 Basin, Plaintiff and Cross-complainant now seek the claimed lesser relief of an
19 across the board control whereby parties with rights will be limited in their
20 extractions in any water year (October 1-September 30) to eighty (80) percent of
21 their adjudicated rights, subject to provisions for a "physical solution", and subject to
22 the reserved jurisdiction of the Court to adjust upward or downward the permitted
23 level of extractions from time to time." (Notice of Lodging, Ex. A at 1-2; Emphasis
24 supplied). The Pre-trial Conference Order was entered on April 16, 1965 and states
25 that all parties stipulated to a judgment, with the exception of a few who disputed the
26 amount of extraction rights attributed to them by the stipulated judgment, including
27 the City of Los Angeles' claim of a priority right over a certain amount of water.
28 (Notice of Lodging, Ex. A). The latter limited issues were the only issues then

1 remaining for trial. Ultimately, a final stipulated judgment, a consent judgment, was
2 signed by the court on October 11, 1965, which became effective on October 1,
3 1966. Appellate Decision at 898-899. This court finds that the purpose of the
4 original Judgment was limited to the prevention of over extraction from the Central
5 Basin through various administrative and equitable solutions stipulated by the
6 parties.

7
8 ◦ The stipulated Judgment included a clause retaining jurisdiction "to provide
9 for such other matters as are not contemplated by the judgment and which might
10 occur in the future and which if not provided for would defeat any or all of the
11 purposes of this judgment...." Judgment, section IV, subdivision (h).
12

13 ◦ Pursuant to the retention of jurisdiction, the Judgment was amended three
14 times. 1) On March 21, 1980, the court modified the administrative year from a
15 water year to a fiscal year. (Exhibit B to Jurisdiction Motion No. 3, 2008
16 Watermaster Report, at 32-34.) 2) On July 9, 1985, the court modified the
17 Watermaster's annual budget and the exchange pool provision. *Id.* 3) On May 6,
18 1991, the court modified the carryover and overproduction provisions, defined
19 drought carryover and provided for exemptions for extractors of contaminated
20 groundwater. *Id.* It is noteworthy that neither the Judgment nor the subsequent
21 amendments dealt with allocation of storage space. The previous amendments have
22 been limited to preventing over extraction to preserve the integrity of the Central
23 Basin. In 2001, there was yet another motion to amend the Judgment, which was
24 denied in the trial court by Judge Reginald Dunn. The appeal of that decision
25 resulted in the published decision, *Central and West Basin Water Replenishment*
26 *District v. Southern California Water Company, et al* (2003) 109 Cal. App. 4th 891
27 (hereinafter the "Appellate Decision").
28

1 ◦ In this motion, the moving parties have the burden of proof to establish that
2 the adjudication that they seek by the Motion to Amend is within this court's
3 jurisdiction. This issue, and this motion, are hotly contested by other entities who
4 were parties to the original judgment relating to water extraction rights in the Central
5 Basin.

6
7 ◦ The Moving Parties in the instant Motion to Amend contend that the
8 implementation of their new proposed system for water storage in the Central Basin,
9 including transfers of water rights from the West Coast Basin to the Central Basin,
10 falls within the retention of jurisdiction clause in the original Judgment and, thus,
11 that the retention of jurisdiction provision allows this court to amend the Judgment
12 to include the newly proposed provisions.¹ The Jurisdictional Parties disagree.

13
14 ◦ This court is acutely aware that it is limited by the procedural posture by
15 which the Moving Parties elected to proceed on the issue of a groundwater storage
16 program. The decision for this court initially is whether the subject matter of the
17 motion to amend falls within the proper scope of a motion to amend the Judgment
18 under the facts and posture of this case.

19
20 **II. Law of the Case**

21
22 ◦ All parties agree that the Appellate Decision is law of the case, and that the
23 Appellate Decision's interpretation of the Judgment is binding on this Court.

24 ¹ Initially, the Moving Parties sought to join this motion to amend the Judgment relating to the Central Basin
25 Water District with another motion to amend a different judgment in a different case relating to the West Basin
26 Water District. After several procedural steps, these cases were not related by the court system, and are
27 proceeding independently.
28

1 However, the parties do not agree on what the appellate court's decision means.
2 Thus, one of the tasks for this Court is to interpret and apply that Appellate Decision
3 to the pending motions.
4

5 ◦ In the Appellate Decision, which resulted from the 2001 motion to amend the
6 Judgment, the Court of Appeal first considered whether the court below had
7 jurisdiction to amend the original Judgment, based upon the law and also upon the
8 broad retention-of-jurisdiction clause included in the Judgment. The original action
9 sought an injunction regarding extraction rights and the original adjudication was
10 limited to the rights of the parties to extract ground water from the Central Basin.
11 The issue presented in the proposed 2001 amendment was the allegation that
12 extraction rights extended to storage rights. Indeed, it was alleged that storage rights
13 already existed in 1965, based upon extraction rights.
14

15 ◦ Given the alleged linkage to extraction rights, which had been the subject of
16 the original Judgment, the Court of Appeal found jurisdiction to consider the
17 question in Section I of the Appellate Decision. Specifically, the Court of Appeal
18 explained that it found continuing jurisdiction to consider the 2001 Motion based on
19 the fact that the parties sought an interpretation of existing extraction rights to
20 include concomitant storage rights. The Court of Appeal took judicial notice of the
21 findings and certain other original pleadings which referenced the word "storage" in
22 the original Judgment, and considered its meaning. The Appellate Decision
23 concluded that the references to "storage" in the original pleadings in this action and
24 "[t]he principal relief requested" in the original actions related "specifically to
25 determining the level of extractions, not the storage allocation." Appellate Decision
26 at 899-900, 904 fn. 7. The Appellate Court reasoned that the proposed 2001 Motion
27 merely sought an interpretation of the rights already present in the Judgment, and
28 therefore did not contravene the rule against adjudication of future rights. Appellate

1 Decision at 904, citing *City of Pasadena* (1949) 33 Cal 2d 908, 937, and *Orange*
2 *County Water District v. City of Colton* (1964) 226 Cal. App. 2d 642, 648-649.
3

4 ◦ Ultimately, however, the Court of Appeal determined in Section IV of the
5 Appellate Decision, that there were no such storage rights encompassed within the
6 original Judgment. The Court of Appeal noted that the principal relief requested in
7 the Judgment was with respect to extraction rights, and that no relief was requested
8 in the original action with respect to the use of the storage space in the Central
9 Basin.
10

11 ◦ Thus, this court finds that law of the case applies, and this court is bound by
12 the Court of Appeal's holding in the Appellate Decision: namely, that the original
13 Judgment did not encompass storage rights and any attempt to modify the Judgment
14 to include storage rights is beyond this court's jurisdiction. To the extent that the
15 instant Motion to Amend proposes an adjudication of storage rights apart from
16 extraction rights adjudicated in 1965, then it exceeds the scope of the court's original
17 and retained jurisdiction.
18

19 **III. This Court's Jurisdiction to Rule on the Motion to Amend the Existing**
20 **Judgment**

21 ◦ Separate and independent of any determination compelled by law of
22 the case, the motion to amend a prior judgment raises several fundamental
23 legal issues with respect to scope and authority. The Motion to Amend does
24 not seek minor or uncontroversial amendments. Instead, it seeks major
25 changes to the prior Judgment in order to implement a complex water storage
26 system between the Central Basin and the West Basin. The proposed
27 amended water storage program is apparently the result of a negotiated
28 agreement among some, but not all, of the parties to the original Judgment.

1 The Moving Parties offered a 130-page proposed amended judgment to
2 implement the new provisions, as well as 36 pages of "Rules and Regulations
3 for Storage in the Central and West Coast Groundwater Basins" which it asks
4 this court to approve.
5

6 Moving Parties contend that the additions sought are within this
7 court's jurisdiction because the original judgment broadly retained
8 jurisdiction, as set forth above, and further because courts are empowered
9 under case law and Article 10 of the California Constitution to craft a
10 physical solution. However, this court concludes that its general jurisdiction
11 over issues of water law is circumscribed in this case because of the
12 procedural context: namely, the Moving Parties are seeking to amend a prior
13 judgment, and have not initiated a new action. Thus, this Court is limited by
14 the procedural posture by which the moving parties elected to proceed to
15 implement the changes they seek in the way of a groundwater storage
16 program. The decision for this Court initially is whether the subject matter of
17 the motion to amend falls within the proper scope of a motion to amend a
18 judgment under the facts and posture of this case.
19

20 A number of well-established legal principles apply to a motion to
21 amend a judgment based upon a retention of jurisdiction clause. A court may
22 not retain power of that which was never within its jurisdiction. 7 Witkin,
23 *Cal. Proc.* (5th ed. 2008) Judgment, §80; *Orange County Water Dist. V. City*
24 *of Colton* ("OCWD") (1964) 226 Cal. App.2d 642, 648-49, citing *City of*
25 *Pasadena v. City of Alhambra* (1949) 33 Cal.2d 908. This rule may not be
26 contravened even where a judgment contains broad jurisdictional language.
27 A court may not, even through a provision broadly retaining jurisdiction,
28 reserve unto itself the right to adjudicate new and after-acquired rights by any

1 of the parties. The court does not have present jurisdiction to modify the
2 judgment to implement changes that go beyond the scope of the issues
3 framed in the original pleadings. *OCWD* at 646-647. Indeed, in the
4 Appellate Decision, the Court of Appeal ruled that the "broad" retention of
5 jurisdiction in the Central Basin Judgment was proper so long as "it does not
6 contravene" the rule established by cases such as *City of Pasadena, supra*,
7 and *OCWD, supra*.

8
9 o In order to evaluate whether this court has the power to implement the
10 changes sought by the Moving Parties as an amendment to the prior
11 Judgment, it is necessary to review what changes are sought by the moving
12 parties in the motion to amend. Clearly, had the parties brought a new
13 action, the court would not be so constrained.

14
15 **IV. The Motion to Amend**

16
17 A. The primary purpose of the motion to amend is the implementation of
18 an extensive groundwater storage regulation program, which is
19 opposed by the Central Basin Municipal Water District and the Cities
20 of Cerritos, Downy and Signal Hill in four motions challenging the
21 court's subject matter jurisdiction to amend the judgment.

22
23 Included in the changes sought by the motion to amend are:

- 24 1. A linking of the Central Basin water rights to the West Basin
25 water rights, including the right to produce water from the
26 Central Basin predicated upon extractions rights held in the
27 West Coast Basin, without any corresponding introduction of
28 new water into the Central Basin.

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2. In addition, the motion to amend asks the court to amend the judgment in the following additional respects:

a. Item 1: "Declaring the Amount of Space to be Used," and authorizing the use of storage space by the parties to the Judgment of up to 200% of the party's allowed pumping allocation. (Motion to Amend at 20:11-23.)

b. Item 2: "Establishing Flexible Areas for Categories of Storage" into:

i. Individual Storage Accounts where each party automatically has the right to store up to 40% of that party's Allowed Pumping Allocation;

ii. Community Storage Pool allowing only the parties to the Judgment to store water on a first-come-first-serve basis, but providing a priority right to occupy to certain small pumpers, and

iii. Regional Storage Project proposed to be used by the Watermaster to store water for the benefit of the region as a whole. (Motion to Amend, at 20:24—21:22.)

c. Item 5: "Establishing a "Basin Operating Reserve" setting aside 125,000 acre-feet of available dewatered space for the Water Replenishment District ("WRD")

1 to store water for "future replenishment needs."
2

3 (Motion to Amend at 22:9-13.)
4

5 d. Item 6: Appointing a new "Participative" Water
6 Master, consisting of three new bodies that perform
7 different functions: a Storage Panel "empowered to
8 review proposals for regional storage and to enforce
9 aspects of the Judgment related to the storage program,
10 an "Administrative Body" to oversee administrative
11 functions, and a Water Rights Panel consisting of five
12 representatives of parties having water rights in the
13 Central Basin. (Motion to Amend at 22:14—23:1.)
14

15 e. Item 8: Allowing a "call" on carryover water
16 converted to storage. [providing for the extraction of
17 water that has been converted to storage and stored
18 accordingly.] (Motion to Amend at 23:7-13.)
19

20 f. Item 9: Providing for Future Water Supply
21 Augmentation to the extent the augmentation is
22 created by storage. (Motion to Amend at 23:14-20.)
23

24 g. Item 10: "Allowing Transferability of Stored Water"
25 and thus permitting water that has been stored, or
26 water rights, to be transferred from the Central Basin
27 to the West Coast Basin.
28

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h. Item 12: "Providing for Periodic Review of the storage program. (Motion to Amend at 23:28—24:5.)

B. Jurisdictional Motion No. 1.

° Jurisdictional Motion No. 1 contends that this court lacks subject matter jurisdiction with respect to the portions of the Motion to Amend and proposed judgment (filed May 4, 2009) that seeks to merge the management of the Central and West Coast Basins, and adjudicate water rights in both basins in this proposed amended judgment. Thus, the Jurisdictional Parties contend that the moving parties seek, in the substantive amendments proposed, to bring the West Coast Basin within the jurisdiction of the proposed amended judgment, even though the West Coast Basin was never a party to the original Judgment. Specifically, the Jurisdictional Parties cite to the proposed modifications in the Motion to Amend to "permit the limited transfer of stored water from the West Coast Basin to the Central Basin." (Motion to Amend at 37-38; see also Proposed Third Amended Judgment, Section IV, subdivision (I)).

° The Central Basin and the West Coast Basin were the subjects of two separate groundwater adjudications, and are governed by two separate and distinct judgments. The original Central Basin Judgment makes no mention whatsoever of the West Coast Basin or the West Coast Basin Judgment, and does not purport to have had or to reserve jurisdiction over water rights

1 issues in the West Coast Basin. Indeed, neither basin's judgment contains
2 any reference to the other basin or to its judgment. As the original Judgment
3 did not encompass water rights in the West Coast Basin, and the Motion to
4 Amend unquestionably seeks to amend the Judgment to administratively and
5 functionally link the Central and West Coast Basins, this court finds that
6 these portions of the motion to amend are beyond the retained jurisdiction of
7 the court. Moreover, the extraction rights held in the West Coast Basin are
8 the subject of a totally different judgment, and the parties are currently
9 seeking to amend that judgment in another court.
10
11
12

13 ◦ Although the Moving Parties argued that the court has "enormous
14 power" to fashion a remedy in this case by using the doctrine of physical
15 solution, the court disagrees. The court does not have authority to implement
16 a physical solution without first establishing that the Central Basin is
17 oversubscribed, i.e. either actual extraction exceeds the reasonable capacity
18 of the water basin or claimed extraction rights exceed the reasonable capacity
19 of the water basin. See, *City of Barstow v. Mojave Water Agency* (2000) 23
20 Cal. 4th 1224, 1237-1239; *City of Lodi v. East Bay Municipal Utility Dist.*
21 (1936) 7 Cal. 2d. 316; *Big Bear Municipal Water Dist. v. Bear Valley Mut.*
22 *Water Co.* (1989) 207 Cal. App. 3d. 363, 369-370. Indeed, as set forth most
23 recently in *California American Water v. City of Seaside* (2010) 183 Cal.
24 App. 4th 471, "[a] physical solution is an equitable remedy designed to
25 alleviate overdrafts and the consequential depletion of water resources in a
26 particular area, consistent with the constitutional mandate to prevent waste
27 and unreasonable water use and to maximize the beneficial use of this state's
28

1 limited resource. *Cal. Const., art. X, §2.* " ² *Id.* at 480. In addition, this court
2 does not have authority to implement a physical solution without first
3 establishing that it has jurisdiction over storage, which this court ruled above
4 it does not. The retention of jurisdiction clause in the original Judgment does
5 not provide such authority. There is no persuasive argument or evidence
6 that, by declining to amend the Judgment so as to provide for inter-basin
7 transfers, or to administratively and functionally link the Central and West
8 Coast Basins, this court would be defeating any of the purposes of the
9 original Judgment. Judgment, section IV, subdivision (h). However, nothing
10 prevents the Moving Parties from invoking the court's original jurisdiction in
11 a new action.

12
13 ◦ Furthermore, given that these proposed amendments relate to stored
14 water and the transfer of stored water, this court finds that law of the case
15 precludes any such amendments. The Appellate Decision has already found
16 that the original Judgment, which dealt with the right to extract water from
17 the Central Basin, did not create a concomitant right to store water in the
18 Central Basin.

19
20 **C. Jurisdictional Motion No.2.**

21
22 ◦ Jurisdictional Motion No. 2 contends that this court lacks subject
23 matter jurisdiction to consider another part of the Motion to Amend, namely
24 a requested order that would condition the future validity of the original
25 Judgment upon future events in the Central and West Basins. Specifically,

26
27 ² The court notes that *California American Water* not only makes clear that a physical solution is an equitable
28 remedy designed to alleviate overdrafts and depletion of water resources in a particular area, that case involved
a question of interpreting a court's prior amended decision to determine whether the findings of a water
management district contravened the court's prior amended decision. The Court of Appeal found that the
intervener Monterey Peninsula Water Management District's findings contravened the prior amended judicial
decision.

1 the Moving Parties seek to condition the future validity of the original
2 Judgment on the continued maintenance in the Central Basin of a
3 replenishment assessment (by moving party Water Replenishment District of
4 Southern California ("WRD")) "that is uniform with and equal to the
5 [replenishment assessment] in the West Coast Basin."
6

7 ◦ This court agrees that it lacks subject matter jurisdiction to impose a
8 new condition that could invalidate the original Judgment. First of all, a
9 uniform replenishment assessment across both the Central Basin and the
10 West Basin was never an issue raised in the original adjudication of the
11 Central Basin extraction rights, and thus was not part of the continuing
12 jurisdiction retained under the Judgment. Indeed, the prior Judgment did not
13 adjudicate any rights in the West Coast Basin and had no authority over the
14 West Coast Basin. Second, Moving Parties presented no authority that this
15 court could modify the original Judgment by adding a provision that would
16 render the Judgment null and void in the event that the WRD's uniform
17 replenishment assessment should be terminated for any reason. Third, the
18 authority permitting WRD to levy a replenishment assessment is based upon
19 statute, not the original Judgment. Water Code §60000 *et seq.* Finally, the
20 original Judgment applied only to the Central Basin, and did not include any
21 ruling that encompassed the West Basin, involving a replenishment
22 assessment or otherwise. This court has no authority under law to amend a
23 judgment in a way that goes beyond the issues raised in the original
24 pleadings and the original adjudication. Any such amendment would be
25 "extrajudicial and invalid," and outside of the jurisdiction reserved under the
26 Judgment. *Orange County Water District v. City of Colton* (1964) 226 Cal.
27 App. 2d 642, 649.
28

1 **D. Jurisdictional Motion No. 3**

2
3 ◦ Jurisdictional Motion No. 3 contends that the storage, regulation and
4 transfer system proposed by the Moving Parties is beyond this court's
5 retained jurisdiction. This court agrees. The amendments proposed by the
6 moving parties to the original Judgment would create an elaborate
7 groundwater storage regulation program, providing for separate pools for the
8 allocation of storage rights in the Central Basin.

9
10 ◦ With respect to the Motion to Amend, Item 2 of the Motion proposes
11 establishing flexible areas for categories of storage. However, as the court
12 has noted, storage, unless intertwined with extraction rights, was not included
13 in the original Judgment. Moreover, the three new administrative and
14 adjudicative bodies proposed in Item 6 of the Motion to Amend were not
15 issues adjudicated in the prior Judgment. Each of these new bodies is
16 designed to deal with water storage issues that were not part of the original
17 Judgment. The Motion to Amend also proposes inter-basin transfers of water
18 from the Central Basin to the West Coast Basin. Specifically, holders of
19 unused extraction rights in the West Coast Basin would be allowed to gain
20 water rights in the Central Basin without any physical transfer of water into
21 the Central Basin. In short, unused water in the West Coast Basin could be
22 converted into stored water and produced from the Central Basin. It seems
23 clear that these proposals would create new types of water rights not
24 previously adjudicated. Thus, this court concludes that these provisions in
25 the Motion to Amend and proposed Third Amended Judgment seek to confer
26 on parties new and different stored water rights not previously adjudicated in
27 1962 or incorporated within the Judgment. However, the case law is clear
28 that the original Judgment could not have retained jurisdiction to pass upon

1 new and different issues based upon after-acquired rights. *Orange County*
2 *Water District v. City of Colton, supra* at 648-649. Alternatively, the court
3 finds that these modifications are not necessary to avoid defeating the
4 purposes of the original Judgment, which is a condition for retained
5 jurisdiction under the original Judgment.
6

7 **D. Jurisdictional Motion No. 4.**

8
9 ° Jurisdictional Motion No. 4 is the Central Basin Municipal Water
10 District's Motion to Determine Jurisdiction, filed on May 29, 2009. Central
11 Basin's jurisdictional challenge to the Motion to Amend asserts that the
12 amended judgment requested by the Moving Parties would be *ultra vires*
13 because it would: 1) usurp statutory powers belonging to the Central Basin
14 Municipal Water District; 2) unlawfully expand WRD's statutory authority
15 beyond the limits of the enabling statutes in the Water Code sections 60000-
16 60622; 3) disregard WRD's statutory duty to investigate whether another
17 existing agency could accomplish any portion of WRD's proposed new
18 actions; and 4) violate Government Code sections 56824.10-56824.14 which
19 require approval of the Local Agency Formation Commission for the County
20 of Los Angeles. In short, the Jurisdictional Parties contend that the Motion
21 to Amend asks this court to serve in a legislative capacity and give to the
22 WRD powers which are *ultra vires* by enlarging and adding to the limited
23 powers granted to the WRD by the Legislature. The court finds this
24 argument persuasive.

25
26 ° Among other things, the Motion to Amend seeks a new
27 "Participative" Watermaster (referenced in Item 6 of the Motion to Amend)
28 which consists, in part, of the entire WRD board. However, the WRD Act
provides no authority for WRD to act as the Watermaster for the Central

1 Basin or any other groundwater basin, and thus the designation of the WRD
2 as Participative Watermaster lacks statutory authority. Likewise, in the
3 proposed Administrative Body, the WRD is given administrative and
4 adjudicative powers not provided for in the WRD Act.
5

6 ◦ This court agrees that the elaborate groundwater storage proposal
7 encompassed by the Motion to Amend would create new functions and powers
8 for the WRD, which would enlarge the powers granted by the Legislature and
9 conflict with other granted statutory powers. If this court granted the Motion to
10 Amend, it would be engaging in functions traditionally reserved for the
11 Legislature. This Court declines to do that. Indeed, the proposed amendment
12 conflicts with statutory law in several material respects, including law that
13 requires compliance with certain administrative procedural steps. As a result,
14 multiple aspects of the system proposed in the Motion to Amend are *ultra vires*
15 and thus beyond the scope of this court's authority to grant. The court grants
16 Jurisdictional Motion No. 4. on the above grounds. As a result, other arguments
17 presented by the fourth jurisdictional motion are moot.
18

19 IV. Conclusion


20

21 The court grants the four jurisdictional motions. After reviewing the
22 proposed amendments to the Judgment, this court finds that the Motion to
23 Amend seeks to implement new water rights, different from those previously
24 adjudicated in 1962, and seeks to implement changes that do not fall within the
25 scope of this court's continuing jurisdiction. The groundwater storage regulation
26 program proposed in the Motion to Amend is not necessary to avoid defeating
27 the rights under the existing Judgment. The court does not have retained
28 jurisdiction to pass on new and different issues based on after-acquired rights to
allow carryover conversions or inter-basin transfers. These issues have not

1 previously been litigated in this case. In addition, the Motion to Amend conflicts
2 with statutory law set forth in the Water Code and the Government Code, and
3 would expand WRD's powers beyond those granted by the Legislature as set
4 forth above. As a result, the court does not have jurisdiction to grant this Motion
5 to Amend.
6

7 This shall be the court's final Decision on the Jurisdictional Motions and the
8 Motion to Amend. The Jurisdictional Motions are granted as set forth above,
9 and the Motion to Amend is therefore denied.
10

11
12 Dated: 7-7-10

13 
14 **HOLLY E. KENDIG**
15 Holly E. Kendig
16 Judge of the Superior Court
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PROOF OF SERVICE

I, Yolanda S. Ramos, declare:

I am employed in the County of Los Angeles, State of California. I am over the age of 18 and not a party to the within action. My business address is Alston & Bird LLP, 333 South Hope Street, Sixteenth Floor, Los Angeles, California 90071. I am over the age of eighteen years and not a party to the action in which this service is made.

On July 13, 2010, I served the document(s) described as **NOTICE OF COURT'S DECISION ON FOUR JURISDICTIONAL MOTIONS IN OPPOSITION TO MOTION TO AMEND AND MOTION TO AMEND** on the interested parties in this action by enclosing the document(s) in a sealed envelope addressed as follows:

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☒ BY MAIL: I am "readily familiar" with this firm's practice for the collection and the processing of correspondence for mailing with the United States Postal Service. In the ordinary course of business, the correspondence would be deposited with the United States Postal Service at 333 South Hope Street, Los Angeles, California 90071 with postage thereon fully prepaid the same day on which the correspondence was placed for collection and mailing at the firm. Following ordinary business practices, I placed for collection and mailing with the United States Postal Service such envelope at Alston & Bird LLP, 333 South Hope Street, Los Angeles, California 90071.

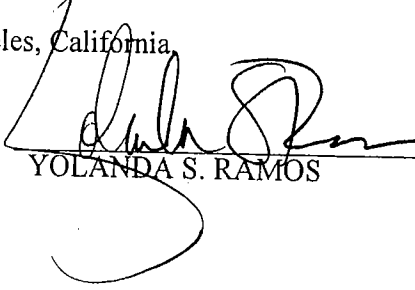
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☐ BY FACSIMILE: I telecopied a copy of said document(s) to the following addressee(s) at the following number(s) in accordance with the written confirmation of counsel in this action.

☒ [State] I declare under penalty of perjury under the laws of the State of California that the above is true and correct.

☐ [Federal] I declare under penalty of perjury that the foregoing is true and correct.

Executed on July 13, 2010, at Los Angeles, California


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Appendix D

CBMWD

Groundwater Management Plan Draft

February 2011

**Initial Study
Central Basin Groundwater Storage Plan:
A Blueprint for Future Reliability**



Prepared for:
Central Basin Municipal
Water District

Prepared by:
HDR Inc. &
Pacifica Services Inc.

Table of Contents

1	Purpose and Statement of Need.....	3
1.0	Program Objectives.....	3
2	Introduction to the California Environmental Quality Act.....	4
2.0	Purpose of the Notice of Preparation and Initial Study.....	5
2.1	Availability of the IS/NOP.....	6
2.2	Public Meetings.....	7
3	Program Description and Environmental Setting	8
3.0	Program Title.....	8
3.1	Lead Agency Name and Address.....	8
3.2	Contact Person and Phone Number	8
3.3	Program Location.....	8
3.4	Program Sponsor’s Name and Address	9
3.5	General Plan Designation.....	9
3.6	Zoning.....	9
3.7	Program and Objectives.....	9
3.8	Setting and Surrounding Land Uses	10
3.8.1	Setting	10
3.8.2	Surrounding Land Uses	11
3.9	Public Agencies Whose Approval is Required.....	11
3.9.1	Lead Agency	11
3.9.2	Responsible Agencies.....	11
3.9.3	Reviewing Agencies.....	12
3.10	Report Organization.....	13
4	Environmental Determination	15
4.0	Factors Potentially Affected.....	15
4.1	Determination.....	15
5	Evaluation of Environmental Impacts.....	16
5.0	Terminology	16

5.1	Evaluation of Environmental Impacts	16
5.1.1	Aesthetic Resources	17
5.1.2	Agriculture and Forestry Resources	18
5.1.3	Air Quality and Greenhouse Gases	20
5.1.4	Biological Resources	23
5.1.5	Cultural Resources	26
5.1.6	Geology, Soils and Seismicity	27
5.1.7	Hazards and Hazardous Materials	30
5.1.8	Hydrology and Water Quality	32
5.1.9	Land Use and Planning	36
5.1.10	Mineral Resources	37
5.1.11	Noise	38
5.1.12	Parks and Recreation	39
5.1.13	Population and Housing	40
5.1.14	Public Services	41
5.1.15	Traffic and Transportation	42
5.1.16	Utilities and Service Systems	43
5.1.17	Mandatory Findings of Significance	45
6	Acronyms and Abbreviations	47
7	References	48
8	List of Preparers and Reviewers	50

Figures:

Figure 1 – Program Boundary

Figure 2 – CBMWD Existing Facilities

Figure 3 – Topographical Map

Figure 4 – Surrounding Land Use

Figure 5 – Farmland Mapping & Monitoring Program

Figure 6 – Significant Ecological Areas (SEAs)

Figure 7 – National Wetlands Inventory

1 Purpose and Statement of Need

The purpose of the action is to implement a Central Basin Groundwater Storage Plan: A Blueprint for Future Reliability, hereafter Plan, to improve water supply reliability throughout the Central Groundwater Basin (Basin). This proactive regional approach would preserve local decision-making authority and local water rights, thus insulating local resources from the full impact of regional and statewide droughts, and water shortages due to regulatory action. Additionally, the Plan would promote better water management in the Basin, particularly during drought years, through groundwater management, system improvements and better integration of surface water and groundwater supplies.

This action is needed because of increasing human and environmental demands on existing water supplies, especially during drought years, as purveyors rely heavily on water from the State Water Project (SWP) delivered via the Metropolitan Water District of Southern California (MWD). The consistent availability of water from the Sacramento and San Joaquin Rivers Delta (Delta) is increasingly in question. Recent biological opinions, litigation and regulatory requirements have made water from the Delta less reliable. For example, “SWP delivery restrictions due to the biological opinion resulted in the loss of about one third of the available SWP supplies in 2008” (MWD, 2010). Further reductions in imported water are possible. This changed condition significantly impacts water agency long term water planning. It will require new measures to ensure a reliable and economic water supply. Southern California has also seen a reduction in allocation due to the increased need for water in Northern California.

1.0 Program Objectives

The following project objectives are based on the goals and principles set forth by the Plan:

- Provide affordable, high-quality water supplies to support a diversified and stable economy and preserve environmental values in the Basin.
- Improve Basin-wide water supply reliability under dry-year hydrologic conditions and extended droughts.
- Improve local and regional control of water resources in the Basin.
- Increase flexibility to use alternative sources of supply during droughts or emergencies.
- Develop guidelines to encourage efficient water use.
- Ensure that water policy and programs in California and elsewhere, that are outside of the Central Basin Municipal Water District 's (CBMWD's) control, do not disproportionately impact low income or minority populations within the CBMWD's service area.

2 Introduction to the California Environmental Quality Act

The basic purposes of California Environmental Quality Act (CEQA) are to:

- Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities.
- Identify the ways that environmental damage can be avoided or significantly reduced.
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved. [CEQA Guidelines, Section 15002].

CEQA applies when a government agency is proposing to undertake a discretionary action directly or indirectly either by financing the proposed project or having approval authority over it. Typically there is a three step-process in deciding which document to prepare for a project that is subject to CEQA:

- The Lead Agency examines the proposition to determine whether the project is subject to CEQA at all. If the project is exempt, the agency may prepare a Notice of Exemption to complete the process.
- If the project is not exempt, the Lead Agency conducts an Initial Study to determine whether the project may have a significant effect on the environment. If the Initial Study shows that there is no substantial evidence that the project may have a significant effect, the Lead Agency prepares a Negative Declaration to complete the process.
- If the Initial Study shows that the project may have a significant effect, the Lead Agency prepares an Environmental Impact Report (EIR). [CEQA Guidelines, Section 15002(k)]

Public agencies are encouraged to reduce delay and paperwork in the CEQA process. One way of doing this is by performing an Initial Study to identify significant environmental issues early on in the process and narrow the scope of the EIR [CEQA Guidelines, Section 15006(d)]. Another is to eliminate duplication with federal procedures by providing for joint preparation of environmental documents with federal agencies and by adopting completed federal National Environmental Policy Act (NEPA) documents. [CEQA Guidelines, Section 15006 (j)]. Additionally, repetitive discussions of the same issues can be eliminated by using EIRs on programs, policies, or plans and tiering from reports of broad scope to those of narrower scope. [CEQA Guidelines, Section 15006(m)].

CEQA requires public agencies to avoid or minimize environmental damage where feasible. If a proposed project is found to have a significant effect on the environment, an agency should not approve it as proposed if there are feasible alternatives or mitigation measures available that would substantially lessen those negative impacts on the environment. Agencies are permitted to consider specific economic, environmental, legal, social, and technological factors in deciding whether such changes are feasible. This rationale is provided in the Findings of Fact. [CEQA Guidelines, Section 15021(a-c)]

CEQA also requires agencies to balance competing public demands (including economic, environmental, and social factors and in particular the goal of providing a decent home and satisfying living environment for every Californian) in determining whether and how a project should be approved. The ultimate balancing of competing public objectives when the agency decides to approve a project that will cause one or more significant effects on the environment is reflected in the Statement of Overriding Considerations. [CEQA Guidelines, Section 15021(d)]

As described in the preceding paragraphs, the proposed Plan for the Basin may be appropriately evaluated at a “programmatic” level. Thereby, the proposed Plan and all known components thereto, will be collectively evaluated for potential direct, indirect, and cumulative environmental impacts. It is important to emphasize that the evaluation of potential environmental impacts presented in the documents associated with this process is at a “programmatic level,” not at a “project level,” since not all specific projects have been identified for evaluation at this time. Therefore, the evaluation of environmental impacts presented in this and following documents evaluating the Plan as a whole will be followed by “project” level evaluations of future projects that may be proposed at various locations within the Basin to realize the comprehensive Plan.

Finally, note that the proposed Plan may be of statewide, regional, or area-wide significance Pursuant to Section 15206 of the CEQA Statute, and therefore must be evaluated in that context.

2.0 Purpose of the Notice of Preparation and Initial Study

Pursuant to Article 5, Section 15060(c) of the CEQA Guidelines, a lead agency must first determine whether an activity is subject to CEQA before conducting an Initial Study. An activity is subject to CEQA if it:

- Involves the exercise of discretionary powers by a public agency;
- Results in a direct or reasonably foreseeable indirect physical change in the environment; or
- Is a project as defined in Section 15378 of the CEQA Guidelines.¹

¹ Section 15378(a) of the CEQA Guidelines defines a project as the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change (1) An activity directly undertaken by any public agency including but not limited to public works construction and related activities clearing or grading of land, improvements to existing public structures, enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100-65700.

(2) An activity undertaken by a person which is supported in whole or in part through public agency contacts, grants, subsidies, loans, or other forms of assistance from one or more public agencies.

(3) An activity involving the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies.

Section 15378(b) excludes the following Projects:

(1) Proposals for legislation to be enacted by the State Legislature;

(2) Continuing administrative or maintenance activities, such as purchases for supplies, personnel-related actions, general policy and procedure making (except as they are applied to specific instances covered above);

(3) The submittal of proposals to a vote of the people of the state or of a particular community that does not involve a public agency sponsored initiative. (*Stein v. City of Santa Monica* (1980) 110 Cal.App.3d 458; *Friends of Sierra Madre v. City of Sierra Madre* (2001) 25 Cal.4th 165);

(4) The creation of government funding mechanisms or other government fiscal activities which do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment.

(5) Organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment.

Section 15378(c) goes on to say the term “project” refers to the activity which is being approved and which may be subject to several discretionary approvals by governmental agencies. The term “project” does not mean each separate governmental approval.

(d) Where the Lead Agency could describe the project as either the adoption of a particular regulation under subdivision (a)(1) or as a development proposal which will be subject to several governmental approvals under subdivision (a)(2) or (a)(3), the Lead Agency shall describe the project as the development proposal for the purpose of environmental analysis. This approach will implement the Lead Agency principle as described in Article 4.

In accordance with the California Environmental Quality Act (CEQA) and CEQA Guidelines, this Initial Study/Notice of Preparation (IS/NOP) has been prepared as a preliminary environmental analysis and documentation for the proposed Plan. The purposes of an Initial Study are to:

- Provide the Lead Agency with information to use as the basis for deciding whether to prepare an EIR or a Negative Declaration.
- Enable an applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a Negative Declaration.
- Assist in the preparation of an EIR, if one is required, by:
 - Focusing the EIR on the effects determined to be significant,
 - Identifying the effects determined not to be significant,
 - Explaining the reasons for determining that potentially significant effects would not be significant, and
 - Identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project's environmental effects.
- Facilitate environmental assessment early in the design of a project;
- Provide documentation of the factual basis for the finding in a Negative Declaration that a project will not have a significant effect on the environment;
- Eliminate unnecessary EIRs;
- Determine whether a previously prepared EIR could be used with the project. [CEQA Guidelines, Section 15063(c)]

The purpose of the Notice of Preparation (NOP) is to notify the responsible and trustee agencies and interested parties that the lead agency plans to prepare an EIR for a project that has potentially significant impacts. The notice serves as a solicitation for guidance from those agencies as to the scope and content of the environmental information to be included in the EIR.

2.1 Availability of the IS/NOP

The IS/NOP is available for public review at the following locations:

Central Basin Municipal Water District Office
6252 Telegraph Road
Commerce, CA 90040-2512
Phone: 323-201-5500

South Whittier Library
14433 Leffingwell Road
Whittier, CA 90604-2966
Phone: 562-946-4415

Huntington Park Library
6518 Miles Avenue
Huntington Park, CA 90255-4388
Phone: 323-583-1461

Artesia Library
18722 S. Clarkdale Avenue
Artesia, CA 90701
Phone: 562-865-6614

Leland R. Weaver Library
4035 Tweedy Boulevard
South Gate, CA 90280
Phone: 323-567-8853

Downey City Library
11121 Brookshire Avenue
Downey, CA 90241-7015
Phone: 562-904-7360

2.2 Public Meetings

The Lead Agency will hold two public meetings related to this IS/NOP. Meeting dates, times and locations are provided below:

- Scoping Meeting 1 – Tuesday, March 8, 2011 from 10am-12pm
Cerritos Library
18125 Bloomfield Avenue
Cerritos, CA 90703
(562) 916-1350
- Scoping Meeting 2 – Tuesday, March 29, 2011 from 6pm-8pm
South Gate Civic Center
8650 California Avenue
South Gate, CA 90280
(323) 563-5479

3 Program Description and Environmental Setting

3.0 Program Title

Central Basin Groundwater Storage Plan: A Blueprint for Future Reliability

3.1 Lead Agency Name and Address

Central Basin Municipal Water District
6252 Telegraph Road
Commerce, CA 90040-2512

3.2 Contact Person and Phone Number

David Hill, Water Resources and Planning Manager
Phone: (323)201-5501
Email: daveh@centralbasin.org

3.3 Program Location

The study area for this Program Environmental Impact Report encompasses the Central Groundwater Basin (CGB or Basin), which covers an area of about 270 square miles in the Los Angeles County Coastal Plain. The CGB is bounded on the northeast and the east by the Elysian, Repetto, Merced, and Puente Hills. The southeast boundary is along Coyote Creek, which is used to separate the CGB from the Orange County Groundwater Basin. The southwest boundary is the Newport-Inglewood fault system and uplift which separates it from the West Coast Basin. It should be noted that some differences were observed between the CGB hydro-geologic boundaries described in California Department of Water Resources Bulletin 118 (DWR, 2004) and information received from the Los Angeles County Department of Public Works. For purposes of defining the study area, the information on CGB boundaries described in DWR Bulletin 118 is utilized herein. During the EIR process, however, any discrepancies between the two descriptions of the basin's hydro-geologic boundaries will be assessed and the most appropriate description of the hydrologic boundaries will be incorporated into the Final EIR.

The Lead Agency's service area encompasses 24 cities and unincorporated areas of Los Angeles, covering a total of 227 square miles and serving over 2 million residents (Figure 1). The Lead Agency's service area is subdivided into 5 Divisions as follows:

Division 1:

Bell Gardens, Downey, Montebello, Norwalk and Vernon

Division II:

La Habra Heights, La Mirada, Pico Rivera, Santa Fe Springs, Whittier and unincorporated areas of West Whittier-Los Nietos and South Whittier

Division III:

Bell, Commerce, Huntington Park, Maywood, Walnut Park and portions of Cudahy, Monterey Park and unincorporated areas of East Los Angeles

Division IV:

Lynwood, South Gate, Florence-Graham, Willowbrook and portions of Cudahy, Compton and Carson

Division V:

Artesia, Bellflower, Cerritos, Hawaiian Gardens, Lakewood, Paramount and Signal Hill

The Lead Agency wholesales imported water from the Colorado River Aqueduct and the State Water Project to 27 retail water customers that include cities, water companies, investor-owned utilities and other private entities within its service area. Customers and purveyors in turn supply water for a variety of municipal, industrial and recreational uses. The retail water customers of the Lead Agency include:

- Bellflower-Somerset Mutual Water Co.
- California Water Service Co.
- City of Bell Gardens
- City of Cerritos
- City of Downey
- City of Huntington Park
- City of Lakewood
- City of Lynwood
- City of Montebello
- City of Norwalk Municipal Water System
- City of Paramount
- City of Santa Fe Springs
- City of Signal Hill
- City of South Gate
- City of Vernon
- Los Angeles County
 - Rancho Los Amigos
- Golden State Water Co.
- La Habra Heights County Water District
- Maywood Mutual Water Co. No. 1
- Maywood Mutual Water Co. No. 2
- Maywood Mutual Water Co. No. 3
- Orchard Dale Water District
- Park Water Co.
- San Gabriel Valley Water Co.
- Suburban Water Systems
- Walnut Park Mutual Water Co.
- Water Replenishment District of Southern California

3.4 Program Sponsor's Name and Address

Central Basin Municipal Water District
6252 Telegraph Road
Commerce, CA 90040-2512

3.5 General Plan Designation

The study area encompasses the entire CGB. As such, land use designations within this large area vary and include residential, commercial, industrial and other land use designations.

3.6 Zoning

The study area covers the entire Basin. Therefore, zoning designations vary and include residential, commercial, industrial and other zoning designations.

3.7 Program and Objectives

The Lead Agency is committed to continuing to acquire, sell and conserve water in a timely and cost-effective manner that provides long-term sustainability and reliability of high quality water to its

customers. The Federal and State water quality regulations will continue to dictate the Lead Agency's long-term planning objectives.

The basic Plan objective is to establish a water management program that will continue to provide high quality water to the Lead Agency's customers in a safe, affordable, reliable and environmentally sensitive way. More specifically, the Plan proposes to acquire water that will be stored in the Basin. Once fully implemented, the Plan will utilize all or a portion of the empty groundwater storage space in the Basin. This storage generally would serve emergency, operational, and pre-delivery needs for local water agencies.

Water used for the Plan would be acquired using some combination of supply concepts. Alternative sources currently under consideration include:

- Conservation
- Recycled Water
- Irrigation Return Flow Credit
- Gray Water
- Stormwater Capture
- Desalination
- Imported Water
- Contaminated Groundwater Remediation and Recovery

Recent biological opinions, litigation and regulatory requirements have made water from the Sacramento River Delta less reliable. For example, "SWP delivery restrictions due to the biological opinion resulted in the loss of about one third of the available SWP supplies in 2008" (MWD, 2010). Further reductions in imported water are possible. This changed condition significantly impacts CBMWD's 2005 Urban Water Management Plan. It will require new measures to ensure a reliable and economic water supply for CBMWD.

3.8 Setting and Surrounding Land Uses

3.8.1 Setting

The study area consists largely of developed and disturbed lands, with an intermixing of small native vegetative communities, lakes/reservoirs, and three major river systems (Los Angeles, Rio Hondo, and San Gabriel Rivers). The CGB is bounded on the northeast and the east by the Elysian, Repetto, Merced, and Puente Hills. The southeast boundary is along Coyote Creek, which is used to separate the CGB from the Orange County Groundwater Basin. The southwest boundary is the Newport-Inglewood fault system and uplift which separates it from the West Coast Basin. Topographically the study area is generally flat, with a gentle north east slope towards the San Gabriel Mountain Range. The north east corner of the study area has a slightly more varied topography as it moves into the Puente Hills. Elevations in the study area range from roughly sea level to just over 1,000 feet above sea level (Figure 3).

The study area is primarily located in an urban setting consisting of densely developed residential, commercial and industrial lands, as well as a large transit network of high traffic roadways and rail lines. By nature of an urban setting, the study area has been heavily disturbed and consists of little to no native vegetation, with the exception of the northeast corner of the study area. Vegetation within the study area is generally dominated by disturbed native or non-native habitats. Aside from avian species

(including migratory), wildlife movement is severely limited due to the urban setting and a lack of wildlife corridors.

3.8.2 Surrounding Land Uses

Land uses surrounding the CBMWD service area vary widely, but are generally developed or urban areas. To the north lie unincorporated areas of Los Angeles County, and the Cities of Hacienda Heights, South El Monte, Rosemead, Monterey Park and the western portion of Los Angeles. The San Gabriel River basin is also to the north. To the south lie the Cities of Carson, Long Beach, Los Alamitos, Cypress and La Palma. To the east lie the Cities of Buena Park, East La Mirada, La Habra and Rowland Heights. The Orange County boundary is also to the east. To the west lie the Cities of Inglewood, Westmont, Hawthorne and Gardena. The City of Compton is not included in the Lead Agency service area, although it is surrounded on virtually all sides by it. The West Coast basin is also to the west of the service area (Figure 4).

3.9 Public Agencies Whose Approval is Required

3.9.1 Lead Agency

Article 4, Section 15050 (a) sets out the “Lead Agency” concept, which says that where a project is to be carried out or approved by more than one public agency, one public agency shall be responsible for preparing an EIR or Negative Declaration for the project. This agency shall be called the Lead Agency. As previously stated, the CBMWD is the Lead Agency for the Plan described and analyzed herein.

3.9.2 Responsible Agencies

Article 4; Section 15050 (b) states that the decision-making body of each Responsible Agency shall consider the Lead Agency’s EIR or Negative Declaration prior to acting upon or approving the project. Each Responsible Agency shall certify that its decision-making body reviewed and considered the information contained in the EIR or Negative Declaration on the project. Responsible agencies and their corresponding approval authorities are listed below:

- Los Angeles Regional Water Quality Control Board (Region 4)
 - National Pollution Discharge Elimination System (NPDES) permit, issuance of permits for spreading of recycled water and injection of recycled water in seawater intrusion barriers
- South Coast Air Quality Management District
 - Permit to operate equipment that emits/controls emissions
- California Department of Fish and Game
 - Incidental take permit
- US Army Corp of Engineers
 - Clean Water Act Section 404 approvals
- US Environmental Protection Agency
 - Clean Water Act Section 404 permit reviews
- California Department of Water Resources
 - Court appointed Watermaster to administer the Judgment for the Central Groundwater Basin
- Los Angeles County Department of Public Works
 - Watershed management, water resources, flood maintenance, waterworks, sewer maintenance, road maintenance (i.e. Operation of spreading facilities)

- County Sanitation Districts of Los Angeles County
 - Wastewater treatment and recycled water producer/supplier

3.9.3 Reviewing Agencies

Federal Agencies

- Department of Interior
 - Bureau of Reclamation
 - Bureau of Indian Affairs
 - Fish and Wildlife Service
 - Geological Survey

State Agencies

- Resources Agency
 - Department of Water Resources
 - Department of Parks and Recreation
 - Office of Historic Preservation
 - Department of Fish and Game
- Department of Toxic Substances Control
- Department of Health Services
- Air Resources Board
- California Department of Transportation
- State Water Resources Control Board
 - Division of Water Quality
 - Division of Water Rights
 - Clean Water Program
- Native American Heritage Commission

Regional Agencies

- Water Replenishment District of Southern California
- Metropolitan Water District of Southern California
- Los Angeles County Department of Public Health
- West Basin Municipal Water District
- Upper San Gabriel Municipal Water District

Local Agencies

- Each City in the CBMWD service area

3.10 Report Organization

Per Article 5, Section 15063(d) of the CEQA Guidelines, an Initial Study shall contain in brief form:

- A description of the project including the location of the project;
- An identification of the environmental setting;
- An identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries. The brief explanation may be either through a narrative or a reference to another information source such as an attached map, photographs, or an earlier EIR or negative declaration. A reference to another document should include, where appropriate, a citation to the page or pages where the information is found.
- A discussion of the ways to mitigate the significant effects identified, if any;
- An examination of whether the project would be consistent with existing zoning, plans, and other applicable land use controls;
- The name of the person or persons who prepared or participated in the Initial Study.

Accordingly, Section 1, "Purpose and Need" defines the goals and thereby the objectives of the Plan and lays out why it is necessary. Section 2, "Introduction to the California Environmental Quality Act" provides the purpose of the IS/NOP, the locations where the IS/NOP is being made available and a list of the public meetings that will be held about the proposed Plan. Section 3 "Program Description and Environmental Setting," gives the Program Title, Lead Agency Name and Address, Contact Person and Phone Number, Program Location, Program Sponsor's Name and Address, General Plan Designation, Zoning, Program Background and Objectives, Setting and Surrounding Land Uses, Construction Scenario, and Required Project Approvals. Section 4, "Environmental Determination", lists the Environmental Factors Potentially Affected and presents the findings of the Initial Study. Section 5, "Evaluation of Environmental Impacts", examines the potential environmental effects of the proposed Plan on each of the issue areas identified below:

- 5.1.1 Aesthetic Resources
- 5.1.2 Agriculture and Forestry Resources
- 5.1.3 Air Quality and Greenhouse Gases
- 5.1.4 Biological Resources
- 5.1.5 Cultural Resources
- 5.1.6 Geology and Soils
- 5.1.7 Hazards and Hazardous Materials
- 5.1.8 Hydrology and Water Quality
- 5.1.9 Land Use and Planning
- 5.1.10 Mineral Resources
- 5.1.11 Noise
- 5.1.12 Parks and Recreation
- 5.1.13 Population and Housing
- 5.1.12 Public Services
- 5.1.13 Traffic and Transportation
- 5.1.16 Utilities and Service Systems
- 5.1.17 Mandatory Findings of Significance

Section 6.0 presents a list of “Acronyms and Abbreviations” used in the report. Section 7.0 lists the “References” used in preparation of this report and Section 8.0 contains a “List of Preparers”.

4 Environmental Determination

4.0 Factors Potentially Affected

The environmental factors checked below would potentially be affected by the proposed Plan and will be further evaluated in the PEIR:

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Aesthetics | <input checked="" type="checkbox"/> Agriculture & Forestry Resources | <input checked="" type="checkbox"/> Air Quality & Greenhouse Gases |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Geology/Soils |
| <input checked="" type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Hydrology/Water Quality | <input checked="" type="checkbox"/> Land Use/Planning |
| <input checked="" type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Parks and Recreation |
| <input checked="" type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Transportation/Traffic |
| <input checked="" type="checkbox"/> Utilities/Service Systems | <input checked="" type="checkbox"/> Mandatory Findings of Significance | |

4.1 Determination

On the basis of this initial evaluation:

I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. ☐

I find that, although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Proposed Project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared. ☐

I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. ☒

I find that the Proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. ☐

I find that, although the Proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Proposed Project, nothing further is required. ☐


Dave Hill, Water Resources and Planning Manager

2-28-11
Date

Central Basin Municipal Water District

5 Evaluation of Environmental Impacts

5.0 Terminology

For each question listed in the Initial Study checklist, a determination of the level of significance of the impact is provided. Impacts are categorized in the following categories:

- A *no impact* determination is given when no adverse changes in the environment are expected.
- A *less than significant impact* would cause no substantial adverse change in the environment.
- A *potentially significant (but mitigable) impact* would have a substantial adverse impact on the environment but could be reduced to a less than significant level with incorporation of mitigation measure(s).
- A *significant and unavoidable impact* would cause a substantial adverse effect on the environment and no feasible mitigation measures would be available to reduce the impact to a less than significant level.

5.1 Evaluation of Environmental Impacts

Impacts can be direct, indirect or cumulative. A direct environmental impact is one that is immediately caused by the project and that occurs at or near the time and place of the project. Indirect impacts are caused by the project but may occur sometime later or at some distance. Indirect impacts may, for example, include induced changes in pattern of land use or population density or growth rate and their related effects on natural systems or other social systems. They may also include secondary impacts associated with mitigation measures. Cumulative impacts occur in combination with other actions or projects that are occurring or are projected to occur within the region of the Proposed Plan. This section describes the potential direct, indirect and cumulative consequences of the proposed Plan using CEQA's Initial Study Checklist and following the CEQA Guidelines described below:

- A brief explanation is required for all answers except "no impact" determinations that are adequately supported by the information sources cited by the lead agency in the parentheses following each question. A determination of no impact is adequately supported if the referenced information sources show that the impact simply does not apply to the project (e.g., the project falls outside a fault rupture zone). A determination of no impact should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- All answers must consider the whole action involved, including off site as well as on site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- Where the Lead Agency has determined that a particular physical impact may occur, responses to the checklist must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. A potentially significant impact determination is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "potentially significant impact" entries when the determination is made, an EIR is required.
- A less than significant with mitigation incorporated determination applies where the incorporation of mitigation measures would reduce an impact from potentially significant impact to a less than significant impact. Mitigation measures are identified along with an

explanation of how they reduce the effect to a less than significant level (mitigation measures may be cross-referenced).

- Previously prepared analyses may be used where, pursuant to the PEIR or other CEQA process, an effect has been adequately analyzed in an earlier EIR or Negative Declaration. In this case, a brief discussion should do the following:
 - Identify previous analysis used and identify and state where they are available for review.
 - Identify which effects from the checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - For effects that are “less than significant with mitigation measures incorporated,” describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project
- References and citations have been incorporated into the checklist references to identify information sources for potential impacts (e.g., general plans, zoning ordinances). References to previously prepared or outside documents, where appropriate, specifies the page or pages where the statement is substantiated.
- Source listings and other sources used or individuals contacted are cited in the discussion.

5.1.1 Aesthetic Resources

Would the Proposed Plan:	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a. Have a substantial adverse effect on a scenic vista?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to trees, rock outcroppings and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Explanation

a. Potentially Significant Impact. The proposed Plan may include projects, such as injection wells, that have a substantial adverse effect on a scenic vista. A scenic vista is a typically an expansive viewpoint of a highly valued landscape that benefits the general public. Views are contemplated in terms of visual access and obstruction, for example whether it is possible to see a focal point or panoramic view from an area. There are scenic vistas within this area that may be impacted by specific projects implemented as a result of the proposed Plan. Given the size and diversity of the study area, there are no general aesthetic standards that apply to all areas. However, the Community Plans and any applicable specific plans, or redevelopment plans will be reviewed to determine if they contain specific guidelines and requirements related to aesthetics. The PEIR will propose potential significance thresholds and delineate standard design features and Program-wide Best Management Practices (BMPs) and

mitigation measures and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

b. Less than Significant Impact. The proposed Plan does not have the potential to substantially damage scenic resources within an officially designated state scenic highway. The only officially designated state scenic highway in Los Angeles County is State Route 2 (SR 2), which encompasses 55 miles of the Angeles Crest Scenic Byway and runs from La Canada-Flintridge to the San Bernardino County line.² SR2 falls outside the boundaries of the Lead Agency, within which all Plan-related projects are expected to occur. However, there are highways, routes and byways within the study area that are eligible for designation. Therefore, although the proposed Plan is not expected to substantially damage scenic resources within a state scenic highway, further study of this issue in the PEIR is warranted to contemplate impacts on eligible thoroughfares.

c. Potentially Significant Impact. The proposed Plan may include projects that have the potential to substantially degrade the existing visual character or quality of the project site and its surroundings. The existing visual character or quality of particular sites within this area may be impacted by specific projects implemented as a result of the proposed Plan. Given the size and diversity of the study area, there are no general aesthetic standards that apply to all areas. However, the Community Plans and any applicable specific plans, or redevelopment plans will be reviewed to determine if they contain specific guidelines and requirements related to aesthetics. The PEIR will propose potential significance thresholds and delineate standard design features and Program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

d. Potentially Significant Impact. The proposed Plan may include projects that have the potential to create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Nighttime lighting considerations concern the effects of a proposed project's exterior illumination upon adjoining uses. Shading issues are related to the effects of shadows cast on adjacent land uses by existing or proposed structures. The PEIR will propose potential significance thresholds and delineate standard design features and Program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

Further Study Required: Further study of potential impacts to scenic vistas, scenic highways, visual character and day/nighttime views is required and will be presented in the PEIR.

5.1.2 Agriculture and Forestry Resources

Would the Proposed Plan (in determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland):

Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Significant Impact
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² California Department of Transportation, State Scenic Highways, *Scenic Route 2*, California Scenic Mapping System. Accessed on January 25, 2011 Available at http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm

- | | | | | |
|--|-------------------------------------|--------------------------|--------------------------|-------------------------------------|
| a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Explanation

a. No Impact. The proposed Plan would not convert farmland to non-agricultural uses. The proposed Plan involves the potential development of new facilities located within an area designated as Urban and Built-Up Land by the Farmland Mapping and Monitoring Program (Figure 5).⁽³⁾ The proposed Plan is consistent with an urban setting, demonstrated by dense urban development intermixed with public park space and minimal undeveloped land. Surrounding land uses are also primarily urban in nature, consisting of commercial and industrial development. No conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would occur as a result of implementing the proposed Plan. No further study of this issue is required.

b. Potentially Significant Impact. The proposed Plan is not expected to conflict with agricultural zoning or a Williamson Act contract land within the study area, because the Plan area is in an urban setting currently used primarily for non-agricultural use. However, the proposed Plan may include transfers that could draw water from areas outside of the study area, which may in turn impact farmland. Therefore, potentially significant impacts may occur and this issue will be studied further in the PEIR.

c. No Impact. Implementation of the proposed Plan is not expected to conflict with existing for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. The proposed Plan is located in a dense urban setting, and land uses immediately surrounding the proposed Plan area consist of a similar, dense, urban setting. Therefore, no further study of this issue is required.

d. No Impact. Implementation of the proposed Plan is not expected to result in the loss of forest land or conversion of forest land to non-forest use. The proposed Plan is located in a dense urban setting, and land uses immediately surrounding the proposed Plan area consist of a similar, dense, urban setting. Therefore, no further study of this issue is required.

³ California Department of Conservation, Farmland Mapping and Monitoring Program. "FMMP Survey Area." *Farmland Mapping*. Web site. Accessed on January 24, 2011. Available at: http://www.consrv.ca.gov/DLRP/fmmp/overview/survey_area_map.htm.

e. No Impact. Implementation of the proposed Plan is not expected to result in changes to the environment that could convert Farmland to non-agricultural uses. The proposed Plan is located in a dense urban setting, and land uses immediately surrounding the proposed Plan area consist of a similar, dense, urban setting. Therefore, no further study of this issue is required.

Further Study Required: Further study of agricultural resources (changes to the existing environment that could convert Farmland) is required in the PEIR.

5.1.3 Air Quality and Greenhouse Gases

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Proposed Plan:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a. Conflict with or obstruct implementation of the applicable Air Quality Management Plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Expose sensitive receptors to substantial pollutant concentrations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Create objectionable odors affecting a substantial number of people?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Explanation

a. Less Than Significant Impact. The proposed Plan would be expected to have a less than significant impact on the applicable Air Quality Attainment Plan (AQAP). The program area is located within the South Coast Air Basin (SCAB). Air emissions in the SCAB are regulated by the South Coast Air Quality Management District (SCAQMD). The SCAQMD is required, pursuant to the Clean Air Act, to reduce emissions of criteria pollutants for which the SCAB is in non-attainment. Strategies to achieve these emissions reductions are developed in the AQAP prepared by SCAQMD for the region. The AQAP is based on Southern California Association of Governments (SCAG) population projections as well as land use designations and population projections included in general plans for those communities located within the SCAB. Population growth is typically associated with the construction of residential units or large employment centers. A project would be inconsistent with the AQAP if it results in population and/or employment growth that exceeds growth estimates for the area. The proposed Plan is intended

to develop and/or enhance infrastructure for the Lead Agency which will address a recent decrease in water supply for the SWP, and as such would not stimulate population growth beyond that already projected to occur. Therefore, any expected impacts are considered less than significant, and no further study related to AQMP's is required.

b. Potentially Significant Impact. The proposed Plan could violate air quality standards or contribute to existing or projected air quality violations. The proposed Plan would be expected to generate air pollutants as a result of construction and potentially from operation-related emissions. The SCAQMD has established standards for air quality constituents generated by construction and operational activities for pollutants such as ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO_x), sulfur dioxide (SO_x), and particulate matter less than or equal to 10 microns in diameter (PM₁₀) and less than or equal to 2.5 microns in diameter (PM_{2.5}). The proposed Plan is located in the SCAB, which is in non-attainment for O₃, PM₁₀, and PM_{2.5}.^{4,5,6} Therefore, further study is required to analyze the potential for violation of air quality standards or contribution to existing or projected air quality violations. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

c. Potentially Significant Impact. The proposed Plan could result in a cumulatively considerable net increase in criteria pollutants for which the SCAB is in non-attainment. The SCAB is in non-attainment for O₃, PM₁₀, and PM_{2.5}.^{7,8,9} Construction and potentially the operation of the proposed Plan would be expected to contribute additional adverse air quality impacts in the existing non-attainment area and may compound the issue. Therefore, further study will be required to analyze the potential for impacts from a cumulatively considerable net increase in criteria pollutants for which the SCAB is in non-attainment. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

d. Potentially Significant Impact. The proposed Plan could expose sensitive receptors to a substantial amount of pollutant concentrations. Sensitive receptors include residential land uses, or other land uses that contain a high concentration of sensitive population groups; such as schools, day care centers, and medical and recreational facilities. Sensitive population groups are more susceptible to the effects of air pollution than the population at large. Construction emissions, although temporary, could result in a significant increase in existing ambient air pollutant health risk. Operational impacts associated with the

⁴ California Air Resources Board. 2010 (Effective 25 March 2010). Figure 1: Area Designations for State Ambient Air Quality Standards Ozone. Available at: http://www.arb.ca.gov/desig/adm/2010/state_ozone.pdf

⁵ California Air Resources Board. 2010 (Effective 25 March 2010) Figure 2: Area Designations for State Ambient Air Quality Standards PM₁₀. Available at: http://www.arb.ca.gov/desig/adm/2010/state_pm10.pdf

⁶ California Air Resources Board. 2010 (Effective 25 March 2010). Figure 3: Area Designations for State Ambient Air Quality Standards PM_{2.5}. Available at: http://www.arb.ca.gov/desig/adm/2010/state_pm25.pdf

⁷ California Air Resources Board. 2010 (Effective 25 March 2010). Figure 1: Area Designations for State Ambient Air Quality Standards OZONE. Available at: http://www.arb.ca.gov/desig/adm/2006/state_ozone.pdf

⁸ California Air Resources Board. 2010 (Effective 25 March 2010) Figure 2: Area Designations for State Ambient Air Quality Standards PM₁₀. Available at: http://www.arb.ca.gov/desig/adm/2010/state_pm10.pdf

⁹ California Air Resources Board. 2010 (Effective 25 March 2010). Figure 3: Area Designations for State Ambient Air Quality Standards PM_{2.5}. Available at: http://www.arb.ca.gov/desig/adm/2010/state_pm25.pdf

proposed Plan could potentially cause localized significant impacts to sensitive populations. Therefore, further study to analyze the potential to expose sensitive receptors to a substantial amount of pollutant concentrations will be required. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

e. Potentially Significant Impact. The proposed Plan could be expected to result in objectionable odors. Short-term construction-related impacts could result from the use of construction equipment and the resulting diesel exhaust. Long-term, operational air quality impacts could occur from storage and treatment of water or waste water, as well as from potential waste management practices. Therefore, further study is required to analyze potential impacts that are a result of objectionable odors. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

f. Potentially Significant Impact. Implementation of the proposed Plan could be expected to have a potentially significant impact on generating greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. The proposed Plan will have minimal CO₂ emissions from construction activities. Those emissions associated with construction activities are expected to be short-term in duration and will be offset by the greater good of the project. The transportation (piping, pumping, etc.) of water can be energy intensive and has the potential to generate greenhouse gas emissions dependent on the method employed. Therefore, further study is required to determine the potential impacts associated with the generation of greenhouse gas emissions. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

g. Potentially Significant Impact. Implementation of the proposed Plan has the potential to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. As a result, there are reasonably foreseeable upset or accident conditions that could create a significant hazard to the public due to the release of hazardous materials. As with all construction activities, accidents may potentially occur and release hazardous materials into the environment. Therefore, further study of significant hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment will be conducted. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

Further Study Required: Further study is required analyze potential impacts to air quality (violation of air quality standards, cumulatively considerable net increase in criteria pollutants, exposure of sensitive receptors to a substantial amount of pollutant concentrations, objectionable odors, and reasonably foreseeable upset and accident conditions) from the proposed Plan.

5.1.4 Biological Resources

Would the Proposed Plan:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a. Adversely impact, either directly or indirectly or through habitat modifications, any endangered, threatened, or rare species as listed in Title 14 of the California Code of Regulations (Section 670.2 or 670.5) or in Title 50 of the Code of Federal Regulations (Section 17.11 or 17.12)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Explanation

a. Potentially Significant Impact. Implementation of the proposed Plan may significantly impact, either directly, indirectly, or through habitat modifications, endangered, threatened, or rare species as listed in Title 14 of the California Code of Regulations.^{10,11} Sensitive plant species are those that are proposed,

¹⁰ California Code of Regulations, Title 14, Section 670.2 or 670.5.

¹¹ Code of Federal Regulations, Title 50, Sections 17.11 and 17.12.

are candidates, or are listed as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS) or the California Department of Fish and Game (CDFG), and those plants that are considered sensitive species by the California Native Plant Society (CNPS). To assist in preserving habitat for these species, Significant Ecological Areas (SEAs) are identified based on existing known habitats of sensitive or endangered species, as well as sites containing a diversity of native plant and animal species.¹² The study area contains four SEAs within its boundaries. Additional SEAs are located adjacent to the study area (Figure 6).¹³ Therefore, further study will be required to analyze any potentially significant impacts associated with habitat modifications, endangered, threatened, or rare species. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

b. Potentially Significant Impact. The proposed Plan may have a potentially significant impact, either directly or through habitat modifications, on species identified as candidate, as sensitive, or as a special-status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS. Although the proposed Plan area is densely developed with residential, commercial and industrial uses, which includes minimal native flora and fauna, it may contain habitat of candidate, sensitive, or special-status species as listed in local or regional plans, policies, or regulations, or by the CDFG or USFWS. As outlined above, the proposed Plan area includes four SEAs. Therefore, further study will be required to analyze any potentially significant impacts associated with species identified as candidate, sensitive or special-status. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

c. Potentially Significant Impact. The proposed Plan may have a potentially significant impact on riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, or by the CDFG or USFWS. All four SEA's located within the proposed Plan area contain riparian habitat and other natural habitat as designated by the CDFG and USFWS. Therefore, further study will be required to analyze any potentially significant impacts associated with riparian habitat or sensitive natural community. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

d. Potentially Significant Impact. The proposed Plan may have a potentially significant impact on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. As determined by reviewing the National Wetlands Inventory "Wetlands Mapper" for the Los Angeles topographic quadrangle, it was determined that both blue-line drainages and wetlands are present within the proposed Plan area (Figure 7).¹⁴ Therefore, further study will be required to analyze any potentially significant impacts associated with federally protected wetlands. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

¹² Ibid.

¹³ Ibid.

¹⁴ "Wetlands Mapper" Accessed on January 25, 2011. Available at: <http://www.fws.gov/wetlands/Data/Mapper.html>

e. Potentially Significant Impact. Implementation of the proposed Plan may have a potentially significant impact on the movement of a native, resident, or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Although the proposed Plan area is densely developed with residential, commercial and industrial uses, which includes minimal native flora and fauna, it likely contains habitat that facilitates the movement of native resident or migratory fish or wildlife species, established native resident or migratory wildlife corridors, and native wildlife nursery sites. The proposed Plan area also contains watercourses that could potentially enable wildlife movement. Therefore, further study will be required to analyze any potentially significant impacts associated with the movement of native, resident, or migratory fish or wildlife species or with established native resident or migratory corridors, or impede the use of native wildlife nursery sites. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

f. Potentially Significant Impact. The proposed Plan may have a potentially significant impact on local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Heritage trees, oak trees, and California native trees are all protected resources that can be found within the study area. Heritage trees are individual trees of any size or species that are specially designated because of their historical, commemorative, or horticultural significance. Additionally, California native oaks are specifically protected by a County of Los Angeles ordinance. The ordinance prohibits destruction of Valley oak (*Quercus lobata*), California live oak (*Quercus agrifolia*), and any tree of the oak genus that is indigenous to California.¹⁵ The proposed Plan area covers a large geographical area that will potentially affect one or more local ordinances protecting biological resources. Therefore, further study will be required to analyze any potentially significant impacts associated with local policies or ordinances protecting biological resources. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

g. Potentially Significant Impact. The proposed Plan area contains an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, further study will be required to analyze any potentially significant impacts associated with habitat conservation area. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

Further Study Required: Further study to evaluate potential impacts associated with biological resources is warranted and will be included in the PEIR.

¹⁵ County of Los Angeles Fire Department Forestry Division Environmental Review Unit. Accessed on January 25, 2011. Available at: http://fire.lacounty.gov/Forestry/EnvironmentalReview_OakTreeOrdinance.asp

5.1.5 Cultural Resources

Would the Proposed Plan:	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Disturb any human remains, including those interred outside of formal cemeteries?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Explanation

a. Potentially Significant Impact. Implementation of the proposed Plan may cause a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the CEQA Guidelines. Significant historical resources include those designated or eligible for designation in the National Register of Historic Places (National Register); the California Register of Historical Resources (California Register) or other state program; or a local designation. The Lead Agency does not own or operate any facilities that have been officially designated as historically significant. The Lead Agency does not have any facilities that are over 45 years old, so none of their facilities are eligible to be designated as historically significant. Implementation of the proposed Plan has the potential to create flooding, which may cause damage to other historic resources within the Lead Agency boundaries. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

b. Potentially Significant Impact. The proposed Plan could cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the CEQA Guidelines from the construction of future projects in support of the conjunctive use program. Archaeology pertains to physical and structural evidence of historic human activities. These artifacts may or may not be visible on the surface, and may be of either prehistoric or historic origin. Construction and operation activities associated with future projects in support of the proposed Plan that affect the surface or below ground have the potential to impact archeological resources. A search of South Central Coastal Information Center's inventory of archeological resources will be performed in the future for specific projects. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

c. Potentially Significant Impact. The proposed Plan could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature from the construction of future projects in support of the conjunctive use program. Paleontological resources are fossilized remains of organisms that inhabited a particular region sometime in the geologic past. Impacts to fossils may occur from ground-disturbing activities such as drilling, excavating or grading activities. The PEIR will propose

potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

d. Potentially Significant Impact. Implementation of the proposed Plan has the potential to disturb human remains, including those interred outside of formal cemeteries from the future construction of specific projects in support of the conjunctive use program. Ground-disturbing activities associated with future projects in support of the proposed Plan may disturb human remains. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

Further Study Required: Further study of cultural resources impacts (historical, archaeological, paleontological and human remains) is required.

5.1.6 Geology, Soils and Seismicity

Would the Proposed Plan:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii. Strong seismic ground shaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv. Landslides?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

☐
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Explanation

a.(i) Potentially Significant Impact. The proposed Plan may expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. The proposed Plan area has established Alquist-Priolo Earthquake Fault Zones within its boundaries. Although the Program will not result in the construction of occupied structures, it will entail the construction of infrastructure; such as wells, pipelines and tanks.¹⁶ Infrastructure to be constructed as part of the proposed Plan will comply with all local, county, and state building codes that will reduce any potential for adverse effects as a result of surface rupture. Therefore, the potential to expose people or structures to surface rupture due to earthquake faults is considered to be low. However, further study is required to analyze the potential substantial adverse effects involving rupture of a known earthquake fault. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

a.(ii) Potentially Significant Impact. The proposed Plan may create impacts related to the exposure of people or structures to substantial adverse effects, including the risk of loss, injury, or death, involving strong seismic ground shaking. The proposed Plan is in an area susceptible to moderate to strong ground shaking in the event of an earthquake, and although it will not result in the creation of occupied structures, it will entail infrastructure construction. Infrastructure to be constructed as part of the proposed Plan will take into account all local, county, and state building codes that will eliminate any potential for adverse effects as a result of strong seismic ground shaking, however further study of adverse effects associated with strong seismic shaking is required. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

a.(iii) Potentially Significant Impact. The proposed Plan may create impacts related to the exposure of people or structures to substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction, related to seismically induced settlement. The proposed Plan area is susceptible to seismic-related ground failure. In order to avoid possible settlement resulting in infrastructure damage, infrastructure would be designed to resist these effects and underlying soils would be properly prepared to provide stability. However, further study of adverse effects associated with seismic-related ground failure is still required. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

a.(iv) Potentially Significant Impact. The proposed Plan could be expected to expose people or structures to the risk of loss, injury, or death involving landslides. With the exception of the northeast

¹⁶ California Geological Survey. Revised 2007. *Fault-Rupture Hazard Zones in California*. Special Publication 42. Sacramento, CA. Accessed on January 25, 2011. Available at: <ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sp/Sp42.pdf>

quadrant of the proposed Plan area, the area is generally flat and not in an area susceptible to landslides.¹⁷ Potential risks associated with landslides will be focused on the northeast quadrant of the program area. To determine the potential risk from landslides to structures or people, projects will be evaluated on a project by project basis to determine susceptibility to landslides. Therefore, further study will be required to determine the potential to expose people or structures to the risk of loss, injury, or death involving landslides. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

b. Potentially Significant Impact. Implementation of the proposed Plan could be expected to result in substantial soil erosion or the loss of topsoil. The proposed Plan may include mass grading, cut-and-fill, soil stockpiling and soil exporting during the construction phase, all of which have potential erosion impacts. Therefore, further study will be required to determine the extent to which substantial soil erosion or the loss of topsoil will occur. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

c. Potentially Significant Impact. The proposed Plan could be expected to have a potentially significant impact related to being located on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed Plan, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. Therefore, further study will be required to analyze potentially significant impacts associated with unstable geologic units and soil. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

d. Potentially Significant Impact. The proposed Plan could have expansive soils located within its boundaries which would create substantial risks to life or property. The risks to life or property associated with potential expansive soils are low as a result of the proposed Plan focus on developing infrastructure, not occupied structures. However, further study is required to analyze the risks to life or property associated with expansive soil. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

e. No Impact. The proposed Plan will not require septic tanks or alternative wastewater disposal systems, therefore no impacts are anticipated and no further study of this issue is required.

Further Study Required: Further study is required to evaluate potential risk associated with geology and soils, with the exception of septic systems.

¹⁷ County of Los Angeles 2008. "Figure 8.1: L.A. County Seismic Hazards Map." *Draft General Plan: Planning Tomorrow's Great Places*. Los Angeles County Department of Regional Planning.

5.1.7 Hazards and Hazardous Materials

Would the Proposed Plan:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Explanation

a. Less Than Significant Impact. Implementation of the proposed Plan is not expected to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Long term operations of the proposed Plan would involve minimal transport, storage, use, or disposal of hazardous materials outside those commonly used in janitorial, maintenance, and repair. These types of materials are not considered acutely hazardous and would be used in limited quantity. All hazardous materials used in conjunction with the Plan would be stored, handled, and disposed of in accordance with local, county, and State laws that protect public safety.

The construction phase of the proposed Plan would involve limited transport, storage, use, or disposal of hazardous materials. Some examples of hazardous materials handling include fueling and servicing construction equipment on-site, the transportation of fuels, lubricating fluids, hydraulic fluids, and solvents. These types of materials, however, are not acutely hazardous, and all storage, handling, and disposal of these materials are regulated by one or more of the following agencies the U.S. EPA, the Occupational Safety & Health Administration (OSHA), as well as local or county fire departments and emergency responders. No further study of this issue is required.

b. Potentially Significant Impact. Implementation of the proposed Plan has the potential to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. As a result, there are reasonably foreseeable upset or accident conditions that could create a significant hazard to the public due to the release of hazardous materials. As with all construction activities, accidents may potentially occur and release hazardous materials into the environment. Therefore, further study of significant hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment will be conducted. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

c. Less than Significant Impact. Implementation of the proposed Plan is unlikely to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Significant hazardous emissions and materials are not expected to result from the proposed Plan. Therefore, further study of the potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school is not required.

d. Potentially Significant Impact. The proposed Plan area covers a wide geographical area which includes commercial and industrial uses intermixed with residential development. Within this area are properties included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As a result, a potentially significant hazard to the public or the environment may be created via cross contamination during the injecting or pumping of groundwater aquifers. Therefore, further study of properties listed under Government Code Section 65962.5 shall be analyzed. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

e. Less than Significant Impact. The proposed Plan is not likely to have any projects that will be located within an airport land use plan or, where such a plan has not been adopted, within 2 nautical miles of a public airport or public use airport, resulting in a safety hazard for people residing or working in the proposed Plan area. The study area for the proposed Plan does not contain any public airports or public use airports; however, the Compton-Woodley Airport (south of Willowbrook) and Long Beach Airport (south of Lakewood) are within 2 nautical miles of the study area boundaries. Other public airports near the study area but outside of a 2-mile radius are the Hawthorne Airport (directly east of Willowbrook) and the Fullerton Municipal Airport (east of La Mirada). Further study of potential impacts associated with the proposed Plan is required due to the study area's proximity to a public airport or public use airport, to determine if the project will result in a safety hazard for people residing or working in the program area. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The

PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

f. Less than Significant Impact. The proposed Plan area is not anticipated to have any significant safety impacts related to a project's proximity to a private airstrip. There are no known private airstrips within the study area or within 2 nautical miles of the study area's boundaries.¹⁸ Less than significant impacts would be expected to occur, and no further study of this issue is required.

g. Less than Significant Impact. The proposed Plan is not expected to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The program is intended to maintain a safe, reliable water supply while addressing expected growth in the region. Even though the Program would have a less-than-significant impact on emergency plans, the PEIR will identify and evaluate standard design measures and potential significance thresholds that will be considered during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

h. Potentially Significant Impact. The proposed Plan may have the potential to expose people or structures to a risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. The proposed Plan area consists mainly of dense urban development with intermixed public lands (parks, open space, etc). As outlined in the City of Los Angeles General Plan Safety Element, a vast majority is not located within or adjacent to a wildfire hazard zone.¹⁹ In the northeast quadrant of the program area the Puente Hills are classified by the Los Angeles County General Plan as a 'Very High Fire Hazard Severity Zone' as a result of dense flammable brush, grass, or tree.²⁰ Therefore, further study is required to analyze the potential to expose people or structures to a risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

Further Study Required: Further study is required to evaluate the potential risks of hazards and hazardous materials, with the exceptions of the routine transport, use, or disposal of hazardous materials and impacts due to proximity of private airstrips.

5.1.8 Hydrology and Water Quality

Would the Proposed Plan:	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a. Violate any water quality standards or waste discharge requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

¹⁸ AirNav Airport Information. Accessed on January 25, 2011. Available online at: <http://airnav.com/airports/us/CA>.

¹⁹ City of Los Angeles. 1996. "Exhibit D: Selected Wildfire Hazard Areas." *General Plan Safety Element*. Los Angeles, CA.

²⁰ County of Los Angeles. 2008. "Figure 8.3 L.A. County Very High Fire Hazards Map." *Draft General Plan: Planning Tomorrow's Great Places*. Los Angeles County Department of Regional Planning.

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|---|-------------------------------------|--------------------------|--------------------------|-------------------------------------|
| b. Substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Otherwise substantially degrade water quality? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h. Place within a 100-year flood hazard area structures that would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| j. Inundation by seiche, tsunami, or mudflow? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Explanation

a. Potentially Significant Impact. Implementation of the proposed Plan could be expected to violate water quality standards and waste discharge requirements. The proposed Plan has the potential to adversely affect water quality through temporarily exceeding applicable water quality standards or waste discharge requirements during the construction phase of the Plan. Post-construction operation and maintenance of the proposed Plan is not expected to violated water quality standards or waste discharge requirements. During implementation, individual projects may involve the disturbance of more than one acre of land and therefore will require further study on a project by project basis to determine compliance with the Clean Water Act. To ensure compliance with the Clean Water Act, a National Pollutant Discharge Elimination System (NPDES) permit, or Storm Water Pollution Prevention Plan (SWPPP), may be required. Therefore, further study is warranted to analyze the potential to significantly violate water quality standards and waste discharge requirements. The PEIR will propose

potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

b. Potentially Significant Impact. Implementation of the proposed Plan could be expected to deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Although one of the objectives of the proposed Plan is to “Replenish and sustain the Basin aquifer in order to meet demand of customers and purveyors”, there are currently potential unknowns in regards to the effects of potential injection and extraction on the groundwater aquifer. Therefore, further study is required to determine the potential to deplete groundwater supplies or interfere with groundwater recharge such that there would be a new deficit to aquifer volume or a lowering of the local groundwater table level. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

c. Potentially Significant Impact. The proposed Plan could be expected to substantially alter the existing drainage pattern of the study area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site. During the construction phase, the project surface drainage patterns may be temporarily altered depending on the size of the project and amount of soil disturbance occurring, or if currently unpaved areas are paved over. In addition, the proposed study area has three major river systems (Los Angeles, Rio Hondo, and San Gabriel Rivers), as well as smaller stream systems. Depending on the methods used for capture, and subsequent conveyance of water used to recharge the aquifer, program level impacts to existing surface drainage patterns may occur. Therefore, further study of the potential to alter the existing drainage pattern of the Program area that would result in substantial erosion or siltation is required. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

d. Potentially Significant Impact. The proposed Plan could be expected to substantially alter the existing drainage pattern of the Program area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site. During the construction phase, activities (i.e. grading, soil stock piling, etc.) could have the potential to impact surface runoff and will be evaluated on a project by project basis. Individual project sites are not be expected to result in a significant increase in impervious surfaces, which would increase the amount of runoff leaving the site. Depending on the methods used for capture, and subsequent conveyance of water used to recharge the aquifer, Program level impacts to on or off site flooding may occur. Therefore, further study of the potential to substantially increase the rate or amount of surface runoff that would result in flooding on or off site is required. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

e. Potentially Significant Impact. The proposed Plan could be expected to create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. The proposed Plan area is developed and served by an existing storm drainage system. Improvements to the drainage system, which would be made in compliance with all applicable local and state ordinances/regulations, may be required as part of the

proposed Plan. The proposed Plan is not expected to generate substantial additional sources of polluted runoff. Therefore, further study of the potential to create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff is required. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

f. Potentially Significant Impact. Implementation of the proposed Plan could be expected to substantially degrade water quality. Although one objective of the proposed Plan is to continue to provide high quality water to CBMWD customers in a safe, affordable, reliable and environmentally sensitive way, the potential for cross contamination or migration of existing subsurface contamination may occur. In addition, there is the potential for short-term, construction related impacts that may substantially degrade water quality. Therefore, further study is required to determine the potential to substantially degrade water quality. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

g. No Impact. There are 100-year flood hazards areas as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation maps within the Plan area. However, the proposed Plan would not construct any housing as part of the Plan implementation. Therefore, no impacts would be expected to occur, and no further study of this issue is required.

h. No Impact. The proposed Plan would not place structures within a 100-year flood hazard area, whereby structures would impede or redirect flood flows²¹. The proposed Plan is intended to build infrastructure which will typically be located underground and would not impede or redirect flood flows. Therefore, no impact would be expected to occur, and no further study of this issue is required.

i. Potentially Significant Impact. Implementation of the proposed Plan could be expected to expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. The Whittier Narrows Dam is located within the study area and the area behind the dam is used for stormwater runoff collection, or as spreading grounds for groundwater recharge. Therefore, further study is required to determine potentially significant impacts associated with flooding that is the result of a failure of a levee or dam. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

j. Potentially Significant Impact. The Plan area would not be expected to be at potential risk for inundation by seiche, tsunami, or mudflow. A seiche is the movement of a closed body of water, typically caused by earthquakes. A seiche related event may potentially occur on one of the three major rivers within the study area. A Tsunami is a series of enormous waves created by an underwater disturbance such as an earthquake, landslide, volcanic eruption, or meteorite. The Plan area is not

²¹ County of Los Angeles. 2008. "Figure 8.2 L.A. County Flood Zone Map." *Draft General Plan: Planning Tomorrow's Great Places*. Los Angeles County Department of Regional Planning.

within a Tsunami Inundation Area²². The location of the Pacific Ocean, more than 2 miles south of the proposed Plan area, renders a tsunami event unlikely to impact the Plan area. Mudflows develop when water rapidly accumulates in the ground, typically during heavy rainfall, which change the earth into a flowing river of mud or “slurry.” With the exception of the northeast quadrant, a majority of the Program area is generally flat with little elevation gain. In the northeast quadrant, the Puente Hills are susceptible to landslides and mudflows. Therefore, further study of the potential risk for inundation by seiche and mudflow is required. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

Further Study Required: Further study related to hydrology and water quality (violation of water quality standards, substantial erosion or siltation on or off site, flooding on or off site, runoff water and seiche and mudflows) is required.

5.1.9 Land Use and Planning

Would the Proposed Plan:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Explanation

a. Less than Significant Impact. The proposed Plan is not anticipated to physically divide an established community. The Lead Agency provides a community resource that the proposed Plan is intended to support. The proposed Plan is not expected to disrupt the physical arrangement of an established community by introducing new infrastructure or isolating land uses that could interrupt the typical activities or change the land use conditions in a community. Although implementation of the proposed Plan is not expected to physically divide an established community, this issue will be evaluated in the PEIR to establish significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

b. Potentially Significant Impact. The proposed Plan is not likely to conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan or zoning ordinance) adopted for the purpose of avoiding or mitigating an

²² *State of California, 2009. “Tsunami Inundation Map for Emergency Planning Long Beach Quadrangle.” California Geological Survey.*

environmental effect; however specific projects implemented in support of the Plan may. The proposed Plan would not require a General Plan amendment or a zone change and it would be consistent with applicable General Plans and elements, or specific plans, redevelopment plans, interim control ordinances or adopted environmental goals or policies. However, this issue will still be evaluated in the PEIR to establish significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

c. Potentially Significant Impact. Implementation of the proposed Plan could conflict with an applicable habitat conservation plan or natural community's conservation plan. The study area contains these specially designated areas, therefore this issue will be evaluated further to ensure that the program does not conflict with habitat conservation plans or community conservation plans. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

Further Study Required: Further study related to the potential for the proposed Plan to conflict with applicable land use plans is warranted.

5.1.10 Mineral Resources

Would the Proposed Plan:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be valuable to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Explanation

a. Less than Significant Impact. Mineral resources that would be of value to the region and residents of the state are located within the Plan area. The proposed Plan may impact a known mineral resource. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

b. Less than Significant Impact. Locally-important mineral resources are located within the Plan area. The proposed Plan may impact a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

Further Study Required: While mineral resource impacts are anticipated to be less than significant, the PEIR will identify and evaluate standard design measures and potential significance thresholds to consider in future site-specific reviews.

5.1.11 Noise

Would the Proposed Project result in:	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Explanation

a. Potentially Significant Impact. The proposed Plan could potentially expose persons to or generate noise levels in excess of established standards. Construction activities associated with specific projects could generate short term noise impacts and operation of mechanical equipment installed in support of the Plan could generate long term noise impacts. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

b. Potentially Significant Impact. Implementation of the proposed Plan may expose of persons to or generation of excessive groundborne vibration or groundborne noise levels. Construction activities associated with specific projects may involve pile driving, grading or other ground disturbing activities as well as heavy truck trips that could result in vibration impacts. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

c. Potentially Significant Impact. The proposed Plan may result in a substantial permanent increase in ambient noise levels in the vicinity of a specific project above levels existing without the project. Operation of mechanical equipment installed in support of the proposed Plan may create a new source

of substantial permanent noise in the area. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

d. Potentially Significant Impact. Implementation of the proposed Plan could create a substantial temporary or periodic increase in ambient noise levels in the vicinity of a specific project above levels existing without the project. Construction of facilities and structures often requires the use of heavy equipment, which may generate high noise levels and adversely affect noise sensitive uses. Construction activities associated with the proposed Plan have the potential to create these increases in ambient noise. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

e. Less than Significant Impact. The proposed Plan has the potential to expose people residing or working in the project area to excessive noise levels resulting from a specific project's proximity to a public airport. The study area for the proposed Plan does not contain any public airports or public use airports; however, the Compton-Woodley Airport (south of Willowbrook) and Long Beach Airport (south of Lakewood) are within 2 nautical miles of the study area boundaries. Other public airports near the study area but outside of a 2-mile radius are the Hawthorne Airport (directly east of Willowbrook) and the Fullerton Municipal Airport (east of La Mirada). Further study of potential impacts associated with the proposed Plan is required due to the study area's proximity to a public airport or public use airport, to determine if the project will result in adverse noise impacts for people residing or working in the program area. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

f. No Impact. The proposed Plan is not anticipated to expose people to excessive noise due to proximity to a private airstrip. There are no private airstrips within the study area.²³ No excessive noise exposure impacts due to a project site's proximity to a private airstrip are expected and no further study of this issue is required.

Further Study Required: Further study of the proposed Plan's potential noise impacts is warranted.

5.1.12 Parks and Recreation

Would the Proposed Plan:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

²³AirNav.com. Listing of California Airports and Airstrips. Accessed on January 25, 2011. Available at: <http://airnav.com/airports/us/CA>

- b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

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Explanation

a. No Impact. The proposed Plan is expected to result in no increase in the use of existing neighborhood and regional parks or other recreational facilities such that a substantial physical deterioration of the facility would occur or be accelerated. The proposed Plan is not expected to affect any of the factors that typically increase demand for these facilities, such as population, community characteristics and/or the geographic area served by a facility. No new residential units are proposed as part of the Plan. Therefore no impacts are anticipated and no further study of this issue is required.

b. No Impact. The proposed Plan does not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse impact on the environment. This Plan is intended to be growth-accommodating, securing future water supplies for existing CBMWD customers. No new or expanded recreational facilities are proposed as part of this Plan, therefore no impacts would occur and no further study of this issue is required.

Further Study Required: No further study of parks and recreation is required.

5.1.13 Population and Housing

Would the Proposed Plan:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Explanation

a. Potentially Significant Impact. The proposed Plan may induce population growth in an area indirectly through an extension of infrastructure. Population growth is limited by, among other things, access to water supplies. Improving access to clean, reliable water therefore may result in the region being able to support an expanded population. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

b. No Impact. The proposed Plan is not anticipated to displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere. No residential units are going to be

directly impacted by the implementation of the proposed Plan; therefore no further study of this issue is warranted.

c. No Impact. Implementation of the proposed Plan would not displace substantial numbers of people, necessitating construction of replacement housing elsewhere. Residential property acquisitions are not proposed as part of this program; therefore no further study of this issue is required.

Further Study Required: Further study into whether the proposed Plan could induce substantial population growth in an area indirectly through extensions in infrastructure is warranted.

5.1.14 Public Services

Would the Proposed Plan result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Explanation

a. Less than Significant Impact. The proposed Plan is not expected to result in a substantial adverse impact to fire protection services. Fire protection service levels are typically impacted by activities that have an adverse effect on response times) or obstruct access, such as increase in traffic or street closures during construction activities. The proposed Plan is not anticipated to cause these types of impacts. By securing a safe, reliable water supply for the region, the proposed Plan would create an indirect benefit for fire protection services. Impacts would be less than significant and no further study is required.

b. Less than Significant Impact. The proposed Plan is not anticipated to have an adverse impact of police protection services. Police protection service needs are related to the size of the population, the geographic area served, and the number and type of service calls received. Similar to fire protection, increased traffic congestion also has an effect on response times for police protection. The proposed Plan is not likely to affect any of these factors that may increase the demand for service from the police or reduce police responsiveness. Impacts are expected to be less than significant and no further study is required.

c. No Impact. Implementation of the proposed Plan is not expected to negatively impacts schools, such that new or altered school facilities will be required. The proposed Plan will not result in the construction of residential units or the creation of new commercial or industrial floor space; therefore it is not expected to cause an increase in population that would necessitate new or expanded school facilities. No impacts are expected and further study is required.

d. No Impact. The proposed Plan is not anticipated to result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant

environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any other public facilities, such as parks or libraries. The proposed Plan will not result in direct population growth through the construction of residential units or commercial/industrial floor space that would create new employment opportunities in the area, therefore no impacts are anticipated. No further study is required.

Further Study Required: No further study of public services is warranted.

5.1.15 Traffic and Transportation

Would the Proposed Plan:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Explanation

a. Less than Significant Impact. The proposed Plan is not anticipated to conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit. Actions associated with the proposed Plan are anticipated to include projects such as injection and/or extraction wells, pipelines and similar construction, which have no bearing on transportation policy. Impacts are expected to be less than significant and no further study is required.

b. Less than Significant Impact. The proposed Plan will not conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways. This issue is related to the ability of a freeway segment or a freeway on- or off-ramp to accommodate increased vehicular traffic demands associated with a proposed project. Since impacts typically results from the addition of new traffic generated by a project and the proposed Plan is not anticipated to generate substantial new traffic, impacts are expected to be less than significant and no further study is required.

c. No Impact. The proposed Plan will not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. The proposed Plan entails managing water resources in the central basin to secure a safe and secure supply. Air traffic patterns will not change as a result of the proposed Plan implementation. No impacts are expected and no further study is required.

d. Less than Significant Impact. The proposed Plan will not result in inadequate emergency access. Emergency access is compromised when risks or deficiencies associated with the adjoining street system due to curves, slopes, walls or other barriers to adequate lines of sight result from implementation of the project. The proposed Plan will not create habitable facilities or structures that people will be coming and going to and from. As such, impacts are expected to be less than significant and no further study is required.

e. No Impact. The proposed Plan will not result in inadequate parking capacity. The proposed Plan will not create habitable facilities or structures that people will be coming and going to and from and therefore will not require parking or result in spillover parking. As such, no impacts are expected and no further study is required.

f. No Impact. The proposed Plan will not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. The proposed Plan entails water-related infrastructure improvements that will have no bearing on transportation mode choices. No impact is expected and no further study is required.

Further Study Required: Further study regarding the proposed Plan's potential impacts on transportation and traffic is not warranted.

5.1.16 Utilities and Service Systems

Would the Proposed Plan:	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- | | | | | |
|---|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g. Comply with federal, state, and local statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Explanation

a. Potentially Significant Impact. The proposed Plan may require or result in the construction of new brackish and seawater desalination facilities. These facilities produce brines and saline concentrates that require disposal. Disposal of brines and concentrates could impact existing or future wastewater treatment facilities. This issue will be studied further in the PEIR. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide discharge standards that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

b. Potentially Significant Impact. The proposed Plan may require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. This issue will be analyzed in the PEIR. The PEIR will propose potential significance thresholds and delineate standard design features and Program -wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

c. Potentially Significant Impact. The proposed Plan may require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. This issue will be studied further in the PEIR. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

d. Potentially Significant Impact. Implementation of the proposed Plan may require new or expanded entitlements in order to have sufficient water supplies available to serve the project. This issue will be considered in the PEIR. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

e. Potentially Significant Impact. The proposed Plan may result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. The PEIR will include a discussion of this issue. The PEIR will propose potential significance thresholds and delineate standard design features and program-wide BMPs and that will be contemplated during future site-specific reviews. The PEIR will not identify or evaluate site-specific impacts, which are too speculative for consideration at this time.

f. Less than Significant Impact. The proposed Plan will be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs. An example of which is Sunshine Canyon Landfill, which services the City and County of Los Angeles and is currently not expected to reach capacity until 2037. Landfills used for individual projects will be selected on a project-by-project basis and will be analyzed in future CEQA documents to ensure that they contain adequate capacity. Solid waste disposal is expected to be minimal, as negligible amounts of demolition are anticipated for specific projects that will be implemented under the proposed Plan. Impacts are expected to be less than significant and no further study is required.

g. Less than Significant Impact. The proposed Plan would be in compliance with federal, state, and local statutes and regulations related to solid waste. There would be minimal solid waste generated as a result of the proposed Plan. Solid waste would be disposed of in a manner that is consistent with federal, state and local guidelines and requirements. Impacts would be less than significant and no further study is required.

Further Study Required: Further study is required for utilities and service systems.

5.1.17 Mandatory Findings of Significance

Would the Proposed Plan:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Explanation

a. Potentially Significant Impact. The proposed Plan is not expected to impact biological resources or sensitive habitats due to the highly urbanized nature of the communities and cities with the study area. Protected trees may need to be displaced but this removal or move would occur consistent with applicable local agency tree removal ordinances. The Plan, through future site construction, has the potential to significantly impact cultural resources. The PEIR will identify and evaluate standard mitigation measures and potential significance thresholds that will be considered during future site-specific reviews. The PEIR will not attempt to identify or evaluate site-specific impacts, which are too speculative for consideration.

b. Potentially Significant Impact. The proposed Plan could potentially result in cumulative impacts to air quality, noise and other issue areas. A key benefit of the PEIR will be the evaluation of the Plan as a whole and consideration of its impacts in combination with other past, present, or reasonably foreseeable future projects. However, the PEIR will not attempt to identify or evaluate site-specific impacts, which are too speculative for consideration.

c. Potentially Significant Impact. The proposed Plan could result in adverse impacts to human beings, especially from cumulative effects. Therefore, the PEIR will also evaluate cumulative impacts that may cause substantial adverse effects on human beings, either directly or indirectly. The PEIR will not attempt to identify or evaluate site-specific impacts, which are too speculative for consideration.

Further Study Required: Further study into Mandatory Findings of Significance is warranted and will be presented in the PEIR.

6 Acronyms and Abbreviations

Acre Feet
Air Quality Attainment Plan
Below Ground Surface
Best Management Practice
Central Basin Municipal Water District
California Environmental Quality Act
California Department of Fish and Game
California Native Plant Society
Carbon monoxide
Environmental Impact Report
Farmland Mapping and Monitoring Program
Initial Study
Metropolitan Water District of Southern California
National Environmental Policy Act
Notice of Preparation
Nitrogen dioxide
National Pollution Discharge Elimination System
Ozone
Occupational Safety and Health Administration
Program Environmental Impact Report
Particular matter less than or equal to 2.5 microns in diameter
Particular matter less than or equal to 10 microns in diameter
South Coast Air Basin
Southern California Association of Governments
South Coast Air Quality Management District
Significant Ecological Areas
Sulfur dioxide
State Route
State Water Project
Storm Water Pollution Prevention Plan
Water Replenishment District of Southern California
United States Environmental Protection Agency
United States Fish and Wildlife Service

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8 List of Preparers and Reviewers

Central Basin Municipal Water District

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- David Hill, Water Resources and Planning Manager

Pacifica Services, Incorporated

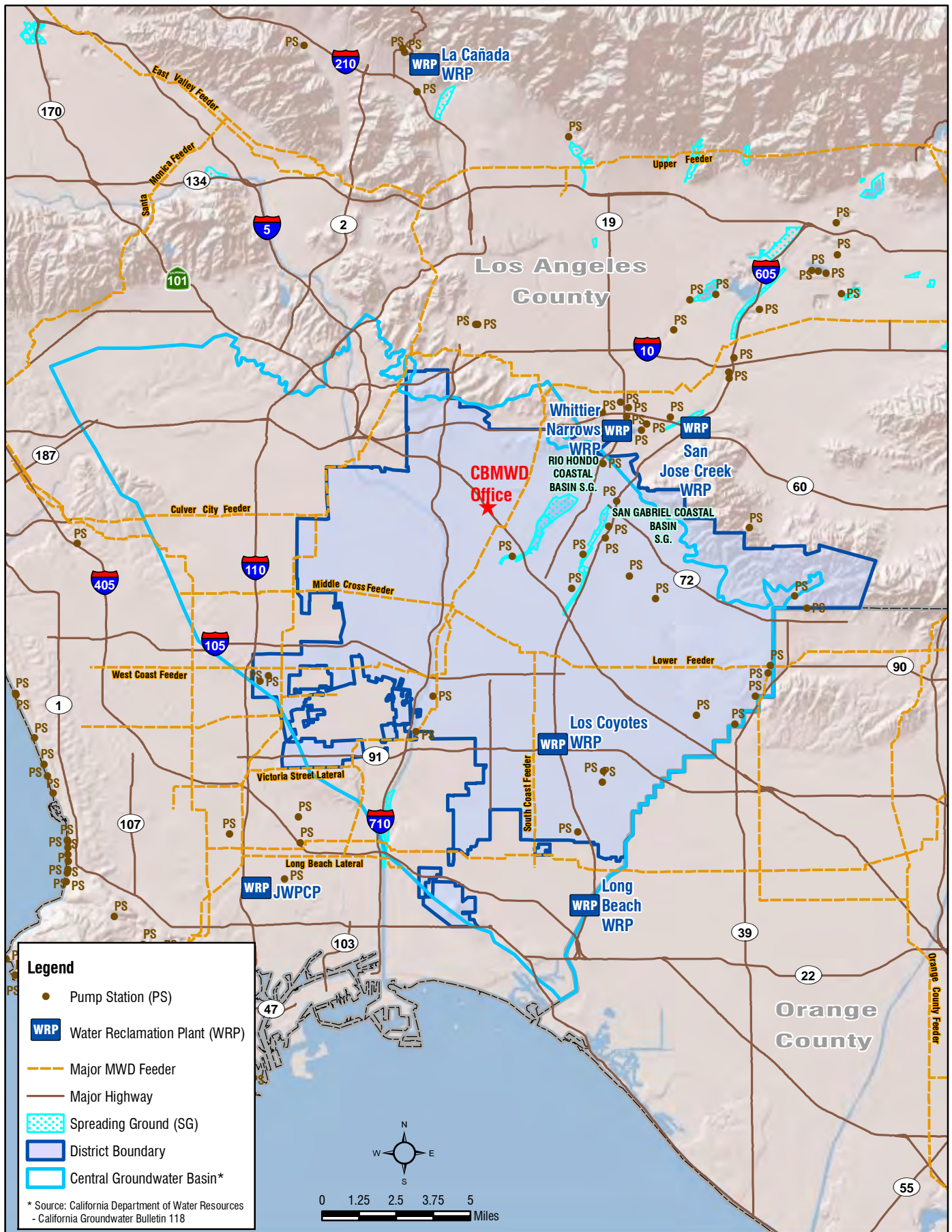
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- Andrew Fowler, Project Manager

HDR

- Jim Cathcart, Program Director
- Mark Beuhler, Beuhler Environmental
- Tobias Wolfe, GIS Manager
- Tom Visosky, Engineering Lead

Figures

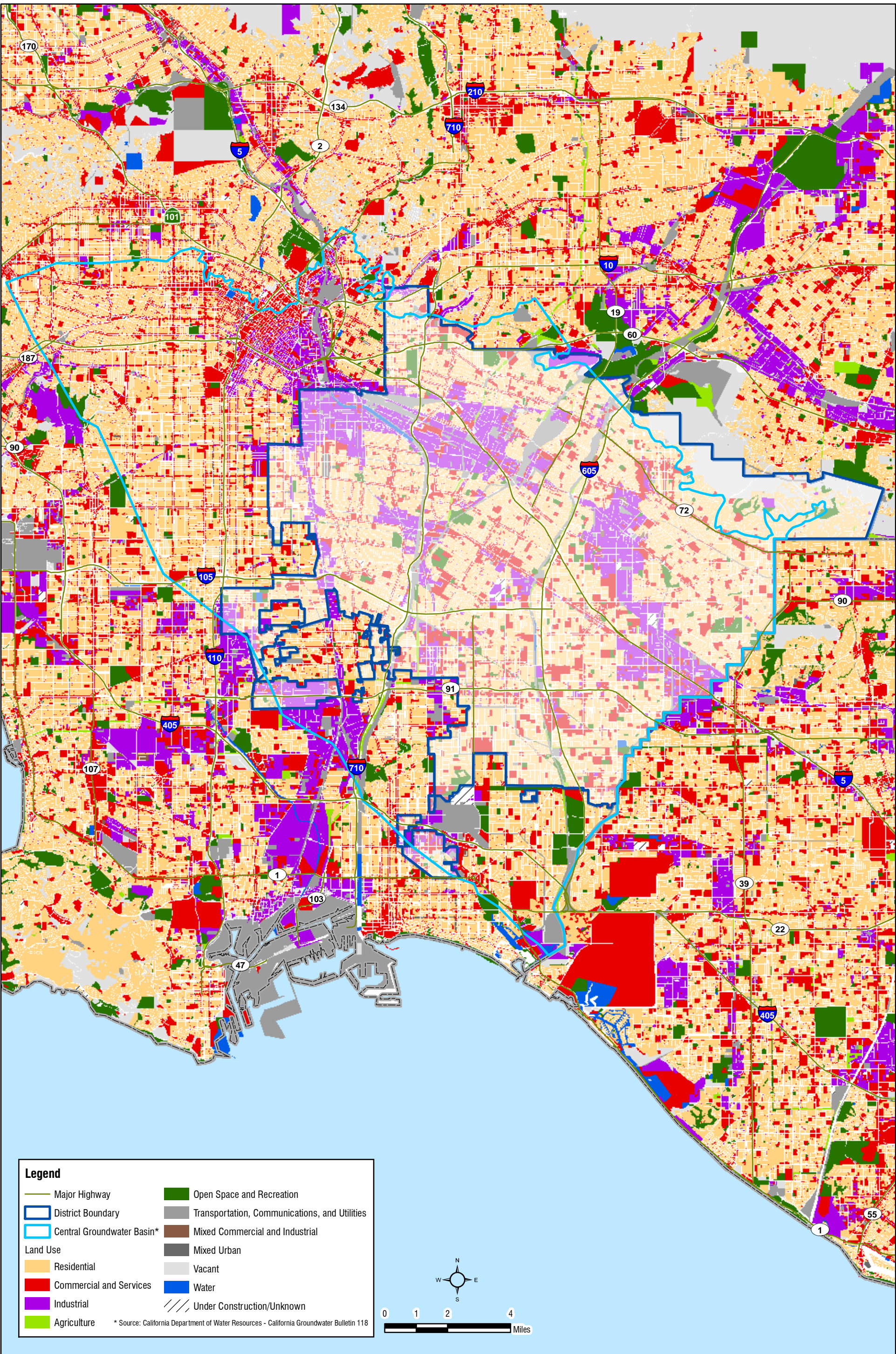




CBMWD Existing Facilities

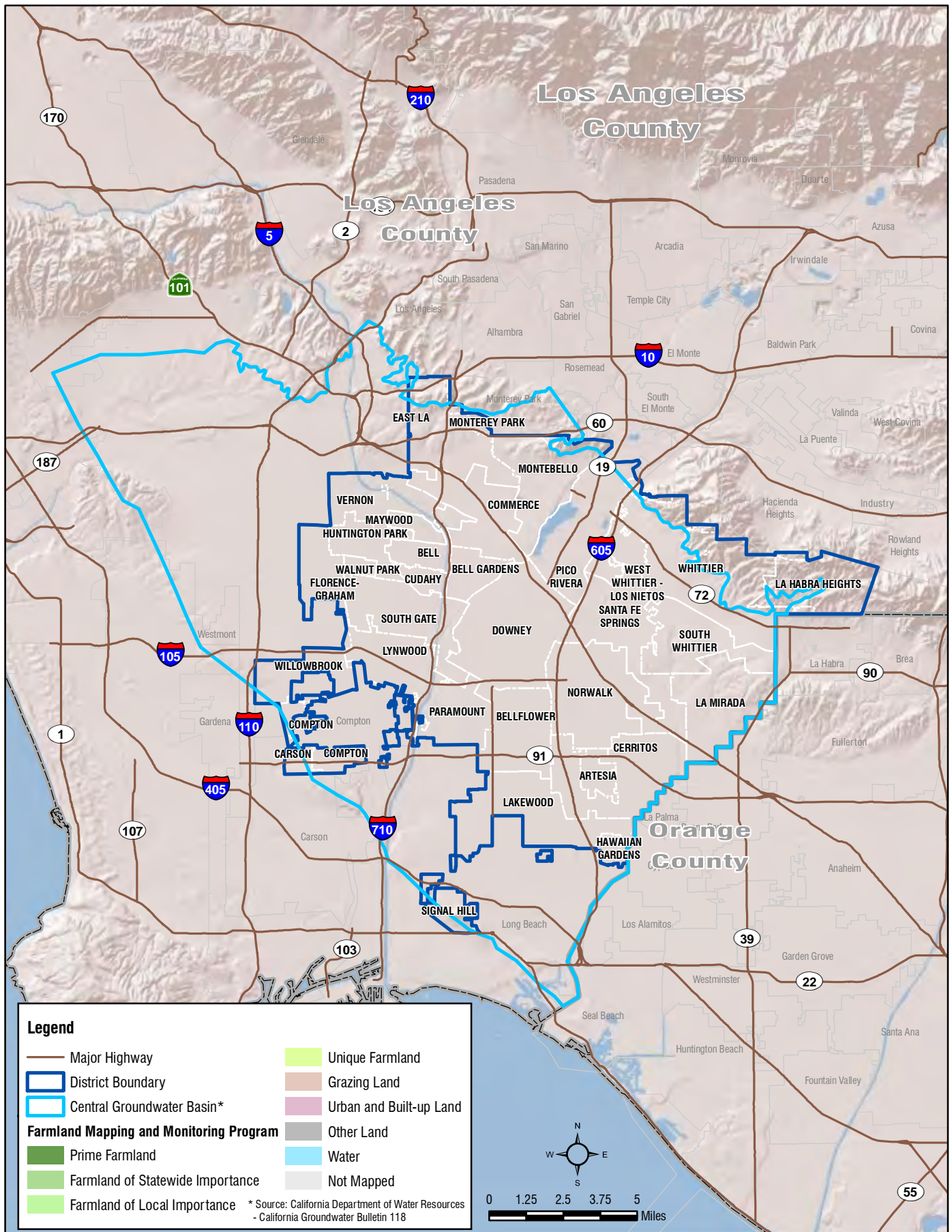
Figure 2



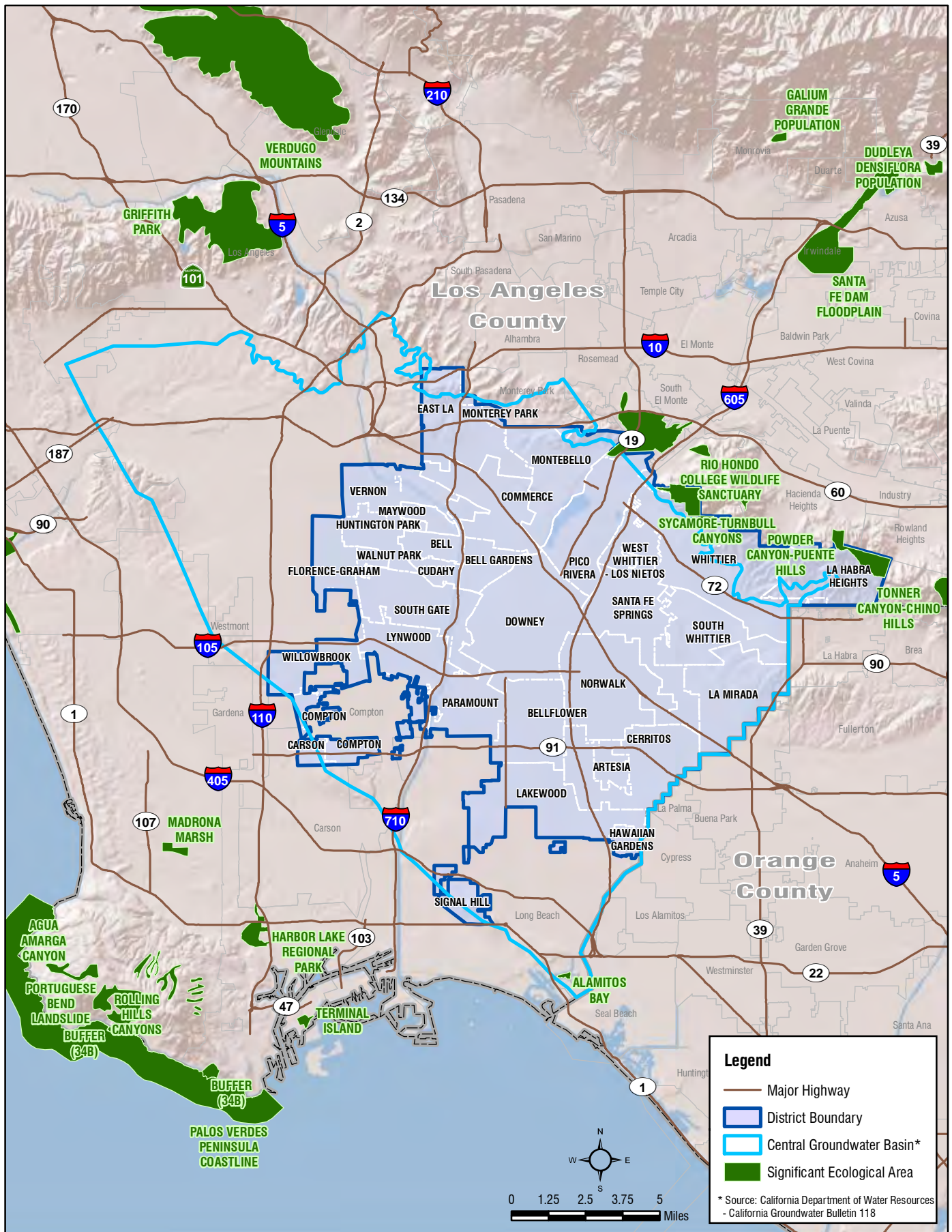


Legend
Major Highway
District Boundary
Central Groundwater Basin*
Land Use
Residential
Commercial and Services
Industrial
Agriculture
Open Space and Recreation
Transportation, Communications, and Utilities
Mixed Commercial and Industrial
Mixed Urban
Vacant
Water
Under Construction/Unknown

* Source: California Department of Water Resources - California Groundwater Bulletin 118

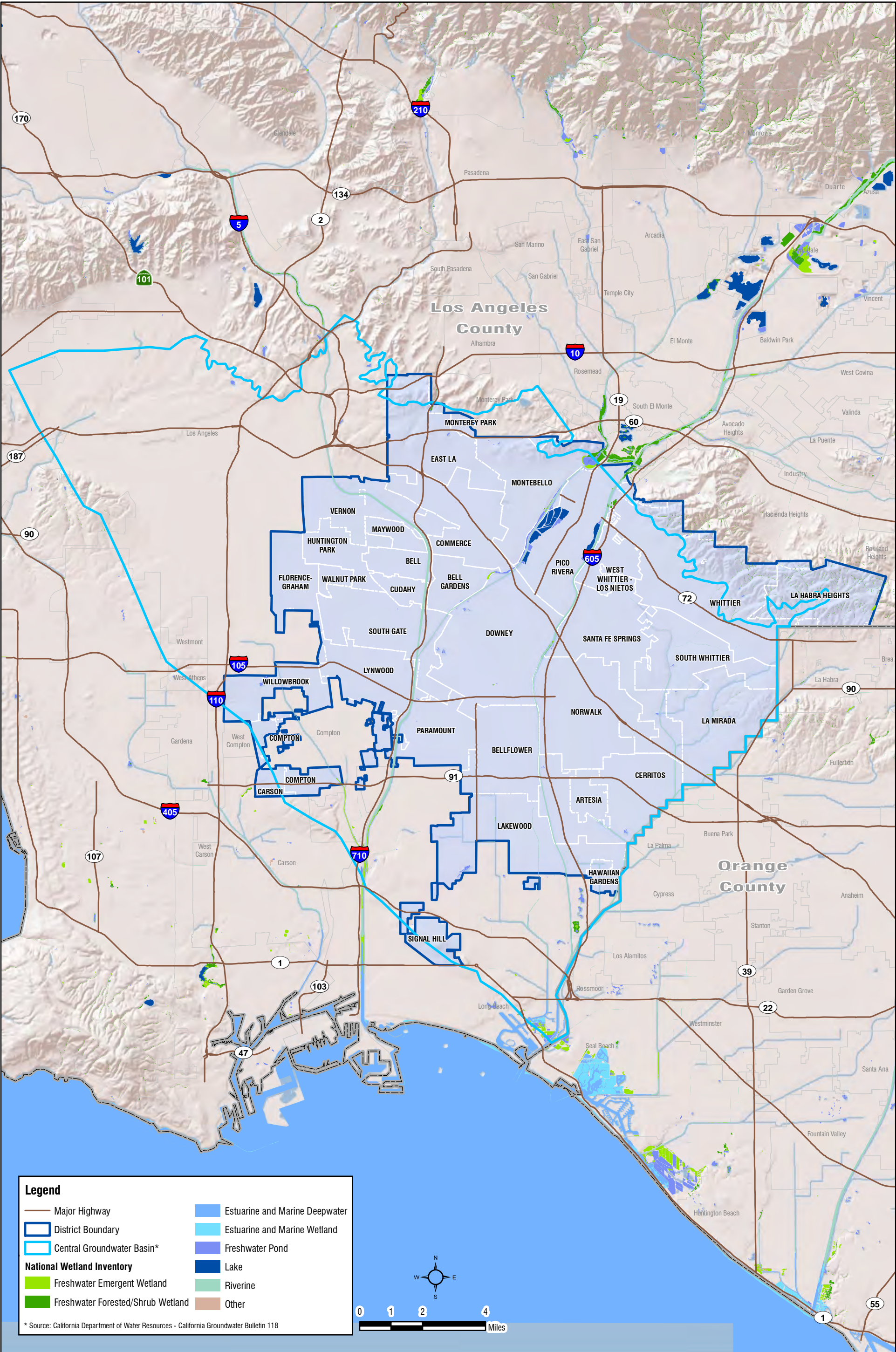


Farmland Mapping and Monitoring Program
Figure 5



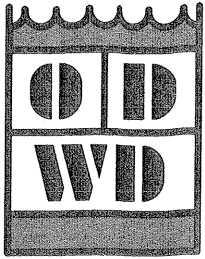
Significant Ecological Areas(SEAs)

Figure 6



Appendix E

ODWD Resolution 08-12-14



Orchard Dale Water District

13819 EAST TELEGRAPH ROAD WHITTIER, CALIFORNIA 90604

(562) 941-0114 • FAX (562) 944-6384

President

ROBERT J. NOONAN

Vice President

JOSEPH K. KENNEDY

Directors

HAROLD C. ESTABROOK

YVETTE STEVENSON-RODRIGUEZ

JOSEPH VELASCO III

Executive Officers

THOMAS L. COLEMAN, Secretary-General Manager

KAREN HARRIS, Auditor

KATHY INGALLS, Assistant Auditor

RESOLUTION NO. 08-12-14

RESOLUTION OF THE BOARD OF DIRECTORS OF ORCHARD DALE WATER DISTRICT ADOPTING A VOLUNTARY WATER CONSERVATION PROGRAM

WHEREAS, Orchard Dale Water District (the "District") is a special district empowered to provide water service within its boundaries; and

WHEREAS, due to a prolonged drought condition and other issues affected the deliveries of imported water to Southern California, the District will likely face water shortages in the near future; and

WHEREAS, inadequate precipitation over recent years has greatly reduced the runoff available to the District from the local watershed; and

WHEREAS, the District has been advised that continued inadequate precipitation throughout the state will likely result in reduced deliveries from the Metropolitan Water District of Southern California to Central Basin Municipal Water District, the District's sole source of imported water; and

WHEREAS, given the current dry conditions, the District finds it necessary to adopt and implement a voluntary water conservation program,

NOW, THEREFORE, BE IT RESOLVED that the District hereby adopts a voluntary water conservation program with a goal of reducing water use by ten percent (10%) or more, to reduce the risk and severity of any water shortage and the District's General Manager is authorized to take all necessary steps to implement such a program; and

BE IT FURTHER RESOLVED, that the District finds that a program of voluntary measures to reduce consumption will assist in achieving the goal of conserving the water supply without causing unnecessary adverse economic consequences; and

BE IT FURTHER RESOLVED, that the District urges its customers to:

- a. Adjust sprinklers and irrigation systems to avoid overspray, runoff and waste;

- b. Avoid watering lawns in the hot part of the day (i.e., between 9:00 a.m. and 6:00 p.m.) and on windy days;
- c. Install new drought tolerant landscaping, low-water-using trees and plants and efficient irrigation systems;
- d. Shut off decorative fountains, unless a water recycling system is used;
- e. Not hose down driveways, sidewalks and other paved surfaces, except when necessary for health or sanitary reasons;
- f. Install pool and spa covers to minimize water loss due to evaporation;
- g. Not allow the hose to run while washing any vehicle and to use a bucket or a hose with an automatic cutoff valve;
- h. Retrofit indoor plumbing fixtures with low-flow devices; and
- i. Check faucets, toilets and pipes, both indoor and outdoor, including house service laterals and sprinkler piping, for leaks and repair them immediately, or upon demand of the Company.

BE IT FURTHER RESOLVED, that if critical water shortages occur and if the voluntary measures implemented prove insufficient to accomplish the necessary conservation, the District will consider further action to curtail water use, including a temporary moratorium on new connections to the District's distribution system.

PASSED AND ADOPTED at a regular meeting of the Board of Directors of the Orchard Dale Water District held on December 10, 2008.


Robert Noonan, President

ATTEST:


Thomas L. Coleman, Secretary

Seal:



Appendix F

Support for Water Education Foundations



Central Basin Municipal Water District

17140 S. Avalon Blvd • Suite 210 • Carson, CA 90746-1296

telephone 310-217-2411 • fax 310-217-2414

**For Immediate Release
January 25, 2005**

**Contact: Nikki Montellano
Office: (310) 660-6252
Cell: (310) 218-2379**

Local High School Basketball Team Nets \$5,805
Central Basin Municipal Water District and Orchard Dale Water District
Awards Team for its Volunteer Efforts

Whittier, CA – Central Basin Municipal Water District Board President Bob Apodaca joined with Orchard Dale Water District Directors Cliff Lee, Joe Kennedy, Elden Hughes and Bob Noonan to proudly present the California High School Boys and Girls Basketball Teams with a check for \$5,805 on Thursday, January 13 for the teams' participation in the Ultra-Low-Flush (ULF) Toilet Distribution program.

On October 2, 2004, members of the California High School Boys and Girls Basketball Teams volunteered to help Central Basin and Orchard Dale Water District distribute 387 free ultra-low-flush toilets to Orchard Dale Water District customers. The school's Assistant Principal of Business and Activities Ben Murillo, along with coaches Brian Barber and Leonard Espinoza, accepted the check on behalf of the team.

"Through the volunteer efforts of the California High School Basketball Teams, we were able to distribute enough ultra-low-flush toilets to save more than three million gallons of water per year," said Apodaca. "These athletes have made an enormous contribution to its community that will last far into the future."

"We are proud to be able to sponsor an event that gives back to the community in so many ways," said Orchard Dale Water District Board President Cliff Lee. "Not only were we able to provide the community with free ultra-low-flush toilets, but we were also able to help this local high school earn money to support its extra-curricular activities."

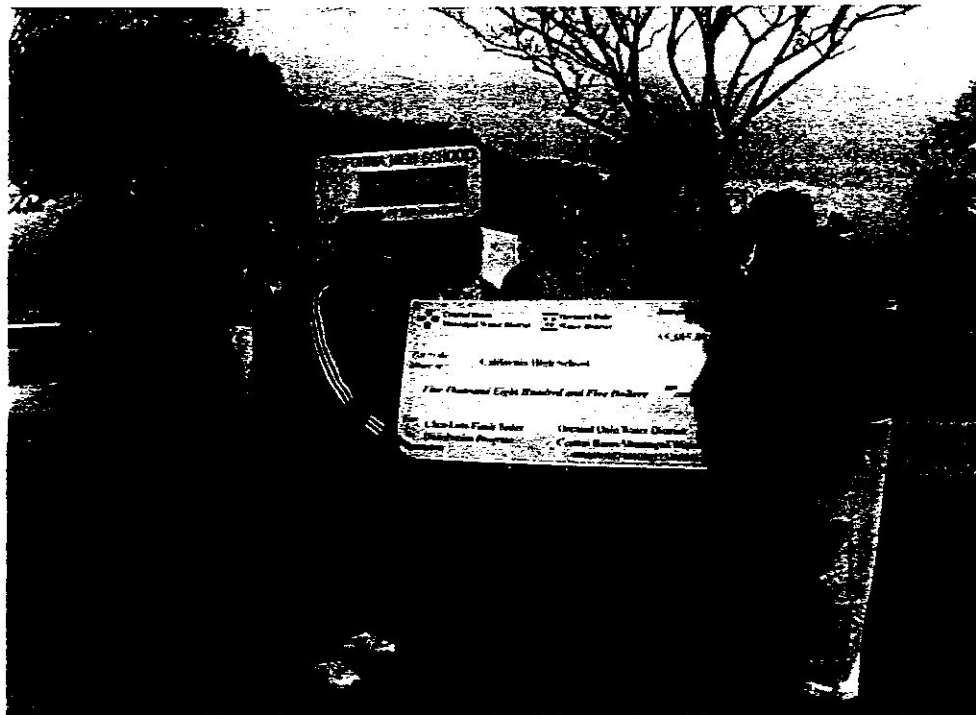
Since 1995, Central Basin has worked with non-profit, community-based organizations and local high schools to promote conservation programs while helping them earn money for their assistance.

These organizations receive funding for each old "water-wasting" toilet that is returned for recycling. The money raised is used for a variety of items ranging from purchasing team uniforms to funding school improvements. The California High School Basketball Teams will use their money toward uniforms and equipment.

The ULF Toilet distribution program was established to provide the public with free high-quality toilets that save an average of 26 gallons of water per day. The programs are conducted annually throughout Central Basin's service area.

Central Basin is a public agency that wholesales imported water to cities, mutual water companies, investor-owned utilities and private companies in southeast Los Angeles County, serving a population of more than 1.5 million. In addition, Central Basin provides the region with recycled water for municipal, commercial and industrial uses. Formed in 1952, Central Basin is committed to ensuring a safe and reliable water supply for the region.

###



Central Basin Municipal Water District Board President Bob Apodaca, together with Orchard Dale Water District Directors, presents California High School with a check for \$5,805. (Pictured from left to right are Orchard Dale Water District Board President Cliff Lee, Orchard Dale Water District Director Joe Kennedy, California High School Girls Basketball Coach Leonard Espinoza, California High School Assistant Principal of Business and Activities Ben Murillo, Orchard Dale Water District Director Elden Hughes, California High School Boys Basketball Coach Brian Barber, Orchard Dale Water District Director Bob Noonan and Central Basin Board President Bob Apodaca.)

(An electronic version of this photo is available upon request.)



WATER EDUCATION FOUNDATION

717 K Street, Suite 317
Sacramento, CA 95814
Phone: (916) 444-6240
FAX: (916) 448-7699
Internet: www.watereducation.org

OFFICERS

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Henry J. Vaux, Jr., Ph.D.
University of California

VICE-PRESIDENT

Edward Tiedemann
Kronick, Moskovitz, Tiedemann
& Girard

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Michael D. Armstrong
Marina Coast Water District

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Donald Evenson
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Dennis Diemer

East Bay Municipal Utility District

Harrison C. Dunning
The Bay Institute of San Francisco

Edw. G. "Jerry" Gladbach
Castaic Lake Water Agency

Robert M. Hagan, Ph.D.
University of California

Philip G. Hall
CH2M Hill Companies, Ltd.

Gary Hansen
Colorado River Indian Tribes

Norris Hundley, Jr., Ph.D.
University of California

Leslie Friedman Johnson
The Nature Conservancy

Homer Lundberg
Lundberg Family Farms

Timothy H. Quinn
MWD of Southern California

Suzanne Redfern
Redfern Ranches Inc.

Anthony Saracino
Groundwater Resources
Association of California

Jesse Silva
Imperial Irrigation District

Frances Spivy-Weber
Mono Lake Committee

Gary Weatherford
Weatherford & Taaffe, LLP

Walter Yep
Walter Yep Inc.

William R. Gianelli
President Emeritus

February 27, 2001

Orchard Dale WD
Gary Draper
13819 E Telegraph Rd.
Whittier, CA 90604

Dear Mr. Draper:

Thank you for your 2001 membership renewal of \$264 to the **Water Education Foundation**. With your support, the Foundation can develop exciting new programs, as well as continue with the activities, publications, and water education programs that are familiar to you.

Throughout the year we will be sending you Foundation information to keep you up-to-date on California and Western water issues. You also will receive advance notice of our tours, briefings, and special events. And we encourage you to visit our web site at **www.watereducation.org**. Here you can receive updates on the Foundation's events and programs. Be sure to check out the catalog at the "products" icon to place an order for our materials and publications **securely on line!**

Your contribution is helping us pursue the Foundation's mission to create a better understanding of water issues and help resolve water resource problems through educational programs. Thank you again.

Sincerely,

Rita Schmidt Sudman
Executive Director

RSS:LR

The mission of the Water Education Foundation, an impartial, nonprofit organization, is to create a better understanding of water issues and help resolve water resource problems through educational programs.



WATER EDUCATION FOUNDATION

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Fred Cannon
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Robert Clark
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Flood Control Assoc.

Vernon Crowder
Bank of America

Dennis Diemer
East Bay Municipal Utility District

Phil Dunn
EDAW

Harrison C. Dunning
The Bay Institute of San Francisco

Edw. G. "Jerry" Gladbach
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Robert M. Hagan, Ph.D.
University of California

Gary Hansen
Colorado River Indian Tribes

Leslie Friedman Johnson
The Nature Conservancy

Homer Lundberg
Lundberg Family Farms

Timothy H. Quinn
MWD of Southern California

Suzanne Redfern
Redfern Ranches Inc.

Anthony Saracino
Saracino-Kirby-Snow

Jesse Silva
Imperial Irrigation District

Frances Spivy-Weber
Mono Lake Committee

Gary Weatherford
Weatherford & Thorne, LLP

Walter Yep
Walter Yep Inc.

William R. Gianelli
President Emeritus

November 28, 2001

Gary Draper
Orchard Dale WD
13819 E Telegraph Rd.
Whittier, CA 90604

Dear Mr. Draper:

As the Water Education Foundation celebrates its **25th anniversary**, we continue to provide you with **timely, factual information** on current water issues. You have been a large part of our success and we offer our gratitude. We also ask that you take this opportunity to renew your support of the Foundation and help take us into the next 25 years.

We start this year, as always, with many critical issues on the table. Many of you have asked us about security and water supplies, drinking water regulations, and opportunities for conjunctive use of water supplies. To answer your many questions, we will be providing you with **education programs year-round**. We will produce bi-monthly issues of *Western Water* magazine on timely topics, a PBS documentary on the Salton Sea, special publications on Colorado River issues, six tours to regions of hot debate, and a mentorship program for young professionals. We will also continue our efforts to educate future decision makers with our school programs that reach up to 500,000 students every year.

We started a program last year in which we provided you with benefits in return for your contributions. We will continue offering the **Giving Back** plan this year. For your generous support of the Foundation's work, we are offering:

FREE subscriptions to *Western Water* magazine
FREE water maps and posters
FREE school programs for schools of your choice
FREE book, *Water & the Shaping of California*
FREE registration at briefings and tours, *and more!*

A statement showing your 2002 giving level is enclosed. By giving at the next level, you will receive many more useful and enjoyable benefits.

There is no other organization providing the education services offered by the Water Education Foundation. Please take this opportunity to generously support our unique and important work.

Sincerely,

Henry J. Vaux, Jr.
President

Rita Schmidt Sudman
Executive Director

P.S. We have already begun producing education programs for 2002. Your rapid response will assist us in getting them to you as soon as possible. Thanks!

2001

The mission of the Water Education Foundation, an impartial, nonprofit organization, is to create a better understanding of water issues and help resolve water resource problems through educational programs.



WATER EDUCATION FOUNDATION

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MWH

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Jean Auer
Southern California Water Co.

Bevin Beaudet
CH2M Hill

Fred Cannon
Business Consultant

Huali Chai
Law Office of Huali G. Chai

Robert Clark
California Central Valley
Flood Control Assoc.

Mary Ann Dickinson
California Urban Water
Conservation Council

Dennis Diemer
East Bay Municipal Utility District

Phil Dunn
EDAW

Harrison C. Dunning
The Bay Institute of San Francisco

Edw. G. "Jerry" Gladbach
Castaic Lake Water Agency

Gary Hansen
Colorado River Indian Tribes

Homer Lundberg
Lundberg Family Farms

William Mills
Groundwater Consultant Engineer

David Orth
Kings River Conservation District

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Anthony Saracino
Saracino-Kirby-Snow

Frances Spivy-Weber
Mono Lake Committee

Daniel Taylor
National Audubon Society

Gary Weatherford
Weatherford & Taaffe, LLP

Walter Yep
Walter Yep Inc.

William R. Gianelli
President Emeritus

February 05, 2003

Gary Draper
Orchard Dale WD
13819 E Telegraph Rd.
Whittier, CA 90604

Dear Mr. Draper:

Thank you for your 2003 membership of \$393 to the **Water Education Foundation**. With your support, the Foundation can develop new programs, as well as continue with exciting activities, publications, and water education programs.

Throughout the year we will be sending you Foundation information to keep you up-to-date on California and Western water issues. You also will receive advance notice of our tours, briefings, and special events.

We encourage you to visit our website at **www.watereducation.org**. Here you can receive updates on the Foundation's events and programs. And place an order for our materials and publications as well as register for events and tours, **securely online!**

Your contribution is helping us pursue the Foundation's mission to create a better understanding of water issues and help resolve water resource problems through educational programs. Thank you again.

Sincerely,

Rita Schmidt Sudman
Executive Director

RSS:LR

Encl.

P.S. Please see your attached coupon(s) based on your 2003 "Giving Back" contribution plan!

4/07 5687

STATEMENT



California Water Awareness Campaign

September 2001

943
Orchard Dale WD

MAKE CHECKS PAYABLE TO:

California Water Awareness
Campaign 2002
PO Box 2408
Sacramento, CA 95812-2408

=====

2002 California Water Awareness
Suggested Support Payment

\$ 550.00

The following contact name will be added to our Water Awareness list unless otherwise specified:

Mr. Gary Draper

Please give us the name of another person in your office who should receive campaign items (i.e. campaign kit, newsletters, bulletins, etc.).

With your continued support this program will be a GREAT success. Please remit your support payment as soon as possible. Your donation will be acknowledged through the mail.

336.00

A/c # 5684



October 2002

Mr. Gary Draper
Orchard Dale WD
13819 E Telegraph Rd
Whittier, CA 90604-2534

Mr. Draper:

Can a water awareness campaign result in lower water consumption in California?

It happened this year in places where the "Right at Home" advertising and public relations program was used. With your continued contributions to the California Water Awareness Campaign, we will extend the reach of our ambitious year-round public information program.

Are new partners joining the California Water Awareness Campaign?

All the time. This summer, the Campaign hooked up with Flex Your Power so when consumers went looking for energy rebates, they also found water-efficiency rebate information. With your continued contributions, the California Water Awareness Campaign will work even harder to secure similar partners who can help us focus Californians on the need to use water wisely.

As you remember, last year we asked you to double your contribution to ensure a successful campaign and help launch our "Right at Home" program. This year, we ask for the normal level of contribution – and for **you** to take some action "right at your home." Take the extra amount you contributed last year and buy some billboards, bus or newspaper advertisements, or movie theater ads. Or, use the professionally designed artwork for bill stuffers. Or, ask your local television station or radio station to place our public service announcements. Or, buy some booklets and distribute them to your customers. And then tell us how it worked.

If you are not yet a partner of the California Water Awareness Campaign, let me offer a few more reasons why we need your help this year.

We continue to experience dry conditions in California. Drought conditions exist in nearly two-thirds of the United States, with some of the worse impacts along the Colorado River Basin – a major source of water to California. Californians need to hear from us and **we can effectively reach them** with important tips on saving water and protecting its quality. How far we reach depends upon your contribution this year.

We appreciate your prior support and look forward to your contribution this year. Today, start the process to continue your active role with the California Water Awareness Campaign. Together, we are making a difference.

Sincerely,
Denis Wolcott

A handwritten signature in black ink, appearing to read "Denis Wolcott".

California Water Awareness Campaign Chair - 2003



New "Right at Home" Campaign Headlines 2002 Effort



A Right at Home campaign billboard seen in the Sacramento Area.

The California Water Awareness Campaign developed and launched its new public information and education campaign called "Right at Home." Making its debut in May 2002, the "Right at Home" campaign consists of a variety of media components which include billboards, bus ads, movie theater ads, print ads, utility

bill inserts, television and radio public service announcements. Also included in the campaign is an informational booklet on water conservation developed for consumers.

The CWAC plans to use this new campaign for a minimum of three years and is looking for it to become the water conservation promotion throughout California. The campaign was developed with a \$250,000 grant from the CALFED Bay-Delta Program and additional contributions from CWAC members.

How We Promoted "Right at Home"

Results this first year have been impressive.

Beginning in May 2002, the CWAC began promoting "Right at Home" with a mixed-media approach in five major geographical areas of California:

Fresno: Two movie theater complexes, 40 bus signs, 15 billboards

San Francisco Bay Area: Three movie theater complexes

Sacramento: Four movie theater complexes, 15 billboards

San Diego: Four movie theater complexes, 15 bus signs

Los Angeles: Eleven movie theater complexes

The television ads were distributed to all California network stations for public service broadcasting.

In addition, many water agencies used the "Right at Home" materials for various purposes in their local communities, such as print ads in newspapers, movie theater ads, television ads, billboards, utility bill inserts and bus kiosk ads.

Our Future Plans for "Right at Home"

In campaign year 2003, plans are already in place for:

- paid radio ads to enhance the messages already used in other media
- production of a Spanish television and radio ad
- production of a long format video for local water agency use and broadcast use
- more supporting artwork

Web Site Was Redesigned

The campaign's Web site, wateraware.org, was redesigned thanks to a generous contribution from the East Bay Municipal Utility District. The new look is more contemporary, user-friendly, and interactive.

All of the "Right at Home" materials are available through the campaign Web site for use throughout the year.

Campaign Begins Cooperation With Flex Your Power

The CWAC, Association of California Water Agencies (ACWA) and the California Urban Water Conservation Council (CUWCC) began a joint cooperative program with the Flex Your Power campaign. ACWA surveyed many of its largest member agencies regarding appliance rebate programs and placed the list of agencies offering rebates on the Flex Your Power Web site. Shared information can also be found on the CWAC Web site. Look for continued cooperation among these agencies in the future.

Two Students Awarded Our Annual Scholarships

For the third year, two deserving high school students pursuing careers in water-related fields each received \$2500 scholarships from the CWAC. The students, one from Danville in the San Francisco Bay Area and one from Laguna Beach, received their scholarships on the floor of the state Senate in Sacramento. State Senator Jim Costa made the presentations. Partially sponsoring the 2002 scholarships was the East Bay Municipal Utility District. Thank you for your generous support!

Our School Education Program Begins With Book #1

The first education booklet in a series of five was produced and distributed to teachers in the fall of 2001. Called *California Water*, the booklet is designed for 4th and 5th grade students and meets the teaching standards for science curriculum at the grade school level. Booklet number two, called *Water Sources*, will be available in fall of 2002.

2002 Steering Committee

Campaign Co-sponsors

California Groundwater Association (2002 chair)

California Farm Bureau Federation
Association of California Water Agencies

California Water Association
U.S. Bureau of Reclamation

California Department of Water Resources
Metropolitan Water District of Southern California
East Bay Municipal Utility District
California Urban Water Conservation Council

Elected Members

Central/West Basin Municipal Water District
California Farm Water Coalition
Kern County Water Agency

Water Education Foundation
Three Valleys Municipal Water District

Campaign Partners

California State Assoc. of Counties
League of California Cities

2002 Campaign Contributions: \$153,020
Number of contributors: 258

California Water Awareness Campaign

910 K Street, Sacramento, CA 95814
(916)325-2596 (916)325-4849 fax
cwac@acwanet.com wateraware.org

"Use Water Wisely – It's a Way of Life"



\$383.00

oked by Board
3-10-04
January 2004

Mr. Gary Draper
Orchard Dale WD
13819 E Telegraph Rd
Whittier, CA 90604-2534

Mr. Draper

Do you feel your customers and stakeholders are engaged with your agency? Do they understand the importance of water quality and water conservation? Do they even know where their water comes from?

Do you feel if you had a little more help, a little more education or positive publicity, you could achieve your public education and outreach goals?

The **California Water Awareness Campaign** is bridging the water information gap for hundreds of water agencies and industries across the Golden state.

What does 2004 hold for you as a valued contributor? The Water Awareness Campaign is joining forces with the highly successful **Flex Your Power** program. In the months ahead, look for announcements on how the synergy of saving water and saving electricity will reach new heights on California's airwaves. The Campaign is proud to add this exciting new element on behalf of our contributors.

As a contributor, you will continue to have available to you professionally designed public information materials at a fraction of the cost you would pay on your own. The "Right at Home" program contains proven outreach materials. The Santa Clara Valley Water District used bus ads, English and Spanish print ads in 21 different newspapers, Spanish radio ads on two radio stations, and the television public service announcement on cable stations. Other agencies throughout the state took advantage of these materials, designed specifically to speak to California audiences.

There's more. Our Web site, www.wateraware.org, continues to improve and remain an important source of information. We will continue to support our future water leaders through the scholarship program and new education books.

We appreciate your prior support and look forward to your contribution for 2004. Today, start the process to continue or begin your active role with the California Water Awareness Campaign. Together, we are making a difference.

Sincerely,

Denis Wolcott
California Water Awareness Campaign Chair - 2004
"Use Water Wisely and Keep it Clean - It's a Way of Life"



2004 STEERING COMMITTEE

CO-SPONSORS

METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA (CHAIR)

EAST BAY MUNICIPAL UTILITY
DISTRICT (VICE CHAIR)

ASSOCIATION OF CALIFORNIA WATER
AGENCIES

CALIFORNIA FARM BUREAU
FEDERATION

CALIFORNIA GROUNDWATER
ASSOCIATION

CALIFORNIA URBAN WATER
CONSERVATION COUNCIL

CALIFORNIA WATER ASSOCIATION

U.S. BUREAU OF RECLAMATION

ELECTED MEMBERS

CALIFORNIA FARM WATER COALITION

ELSINORE VALLEY MUNICIPAL WATER
DISTRICT

UNITED WATER CONSERVATION
DISTRICT

PARTNERS

CALIFORNIA DEPARTMENT OF WATER
RESOURCES (FOUNDING CO-SPONSOR)

CALIFORNIA STATE ASSOCIATION OF
COUNTIES

LEAGUE OF CALIFORNIA CITIES



January 2005

Mr. Gary Draper
Orchard Dale WD
13819 E Telegraph Rd
Whittier, CA 90604-2534

Mr. Draper

Water supplies in the Golden State are tight and the need for Californians to use water responsibly is greater than ever. So is the need to get important messages to your customers about wise water use at home. The California Water Awareness Campaign is here to help with effective, low-cost public education materials.

Proven Results

Water agencies throughout the state have used the Water Awareness Campaign's "Right at Home" materials to generate residential water savings. Ad media includes billboards, TV and radio public service announcements, print ads and movie theater slides. All can easily be customized to include your agency logo.

2004 was another productive year for the campaign. We added a Spanish version of our "Right at Home" water savings brochure, and in the spring we partnered with Flex Your Power to promote appliances that save both energy and water. Through the partnership, 40 ENERGY STAR washing machines were donated to non-profit agencies throughout the state. Accompanying public outreach events educated Californians about the water, energy and financial savings achievable with these efficient appliances.

Your Participation Matters!

Your continued support as a contributing campaign member ensures that your agency has access to low-cost, professionally developed public education materials. This practical, effective statewide campaign cannot go on without your continued support, so please take a minute to process your contribution.

2005 Focus

The campaign will continue to produce practical public education tools – including the fourth in a series of water education books for 4th and 5th graders – and continue collaborating with Flex Your Power to spread the word about the importance of wise water use. We will also finalize our incorporation as a non-profit organization to better serve member needs and allow for fundraising to supplement member contributions.

I appreciate your prior support and look forward to your contribution this year. Together we are making a difference.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Jeff Becerra'.

Jeff Becerra
California Water Awareness Campaign Chair - 2005

\$ 416.00

AK #5687

H/C # 5420



INVOICE

Weatherly Promotions LLC

27780 Jefferson Avenue Suite #4
Temecula, CA 92590
909 695-6866 Fax 909 695-6867

INVOICE DATE:	6/18/2001
INVOICE NUMBER:	133
TERMS	Net 30
INVOICE DUE DATE	7/18/2001

BILL TO:

Orchard Dale Water District
Attn: Gary Dale
13819 E. Telegraph
Whittier, CA 90604

SHIP TO:

Orchard Dale Water District
Attn: Gary Dale
13819 E. Telegraph
Whittier, CA 90604

PROJECT	CUSTOMER P.O.#	REP	SHIP VIA
133 Rulers		CL	UPS
DESCRIPTION	QTY	PRICE EACH	AMOUNT
2001 Water Conservation Ruler with custom imprint	1,100	0.49	539.00T
Sales Tax - Los Angeles		8.00%	43.12
Total Due			\$582.12

1.5% per month (18% per annum) will be charged on all past due accounts.

COLVER COMPANY, INC.
104 BRIDGE ROAD
SALISBURY, MA 01952 USA
(978) 463-1700

C5

Invoice Date : 02/07/03
Invoice Number : 30562
Order Number : 25529
Federal ID # : 13-2883628

BILL TO:
ORCHARD DALE WATER DISTRICT
MR. GARY DRAPER
13819 TELEGRAPH ROAD
WHITTIER, CA 90604

SHIP TO:
ORCHARD DALE WATER DISTRICT
ATTN: MR. GARY DRAPER
13819 TELEGRAPH ROAD
WHITTIER, CA 90604

P.O. #: VERBAL GARY
TERMS : NET 10 DAYS

Due Date : 02/17/03

Cust # : 18474
Page # : 1

Item #	Qty	Description	Price	Extension
32344	250	WATER DROP SAFETY WHEEL *** WITH LOGO ***	\$.9300	\$ 232.50
98255	1	SETUP CHARGE *** WITH LOGO ***	\$28.000	\$ 28.00
32344	125	WATER DROP SAFETY WHEEL *** WITH LOGO ***	\$.0000	N/C

Thank you for your order! If you have any questions
concerning this invoice, please contact Janet Dugdale at
978-463-1700.

Sub - Total =>\$	260.50
Sales Tax =>\$	19.18
Misc. Charges =>	
Shipping/Handlg =>\$	16.28
Total Due =>\$	295.96

FOR YOUR INFORMATION



Advancing the Science of Water
6666 West Quincy Avenue
Denver, CO 80235-3098 USA
Phone 303.347.6100
Fax 303.730.0851
<http://www.awwarf.com>
email: info@awwarf.com

February 27, 2003

Gary Draper
General Manager
Orchard Dale Water District
13819 E Telegraph Rd
Whittier, CA 90604-2534

Dear Mr. Draper:

In 1986, the Awwa Research Foundation established the subscription program with an unprecedented objective—creating an industry-centered research program dedicated to anticipating issues and providing solutions to the challenges of the industry and our individual members. Your support has been the key element in allowing us to work toward this vision.

The Awwa Research Foundation is pleased to acknowledge the many years that Orchard Dale Water District has been a subscriber. We commend you for the contribution you make to the drinking water profession, and we look forward to continuing to work with you—and on your behalf—on the challenges that lie ahead.

Under separate cover, you will receive a marble plaque commemorating your long-term support of the Awwa Research Foundation. The plaque signifies your commitment to the mission of **advancing the science of water**. We hope you display it proudly.

Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "JFM", followed by a long horizontal line.

James F. Manwaring, P.E.
Executive Director

JFM:cf:68

Edmund G. Archuleta, Chair
Walter J. Bishop, Vice-Chair
Tom R. Pearson, Treasurer
James F. Manwaring, Executive Director

Appendix G

ACWA Water Management Certification

Association of California Water Agencies
Water Management Gold Star Certification



This is to certify that

Orchard Dale Water District

has met the criteria for certification in water management by demonstrating
it has a program to maximize the conservation and efficient use of water

Quoly. Kelly
Chair, Water Management
Certification Subcommittee

[Signature]
ACWA Executive Director

Phil Short
ACWA President

Association of California Water Agencies Water Management Certification

This is to certify that

Orchard Dale Water District

has met the criteria for certification
in water management by demonstrating it has
a program to maximize the conservation and efficient use of water

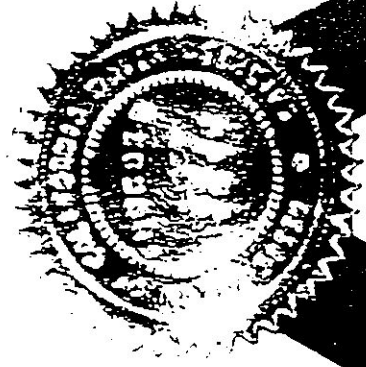
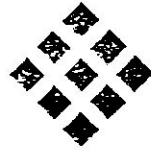
[Signature]
Chair,

ACWA Water Management Committee

[Signature]
ACWA Executive Director

[Signature]
ACWA President

ACWA



Appendix H

Purchase Agreement for Imported Water

**AMENDMENT
TO
PURCHASE AGREEMENT FOR IMPORTED WATER TO BE PROVIDED BY
CENTRAL BASIN MUNICIPAL WATER DISTRICT**

PURCHASER: Orchard Dale Water District

BASE ALLOCATION: 1,450 acre-feet (AF)

TIER 1 ANNUAL MAXIMUM (90% of Base Allocation): 1,305 AF

PURCHASE COMMITMENT (60% of 1,750 AF Base Allocation x 2 years + 60% of 1,450 AF Base Allocation x 3 years): 4,710 AF

TERM: 5 years from January 1, 2008

EFFECTIVE DATE of AMENDMENT: January 1, 2010

THIS AMENDMENT TO THE PURCHASE AGREEMENT FOR IMPORTED WATER TO BE PROVIDED BY CENTRAL BASIN MUNICIPAL WATER DISTRICT, is entered into on October 26, 2009 between Central Basin Municipal Water District and Orchard Dale Water District.

It is mutually agreed that the following changes and additions are hereby made to the Agreement:

- A. Base Allocation is decreased from 1,750 AF to 1,450 AF, as shown above under "BASE ALLOCATION"
- B. Tier 1 Annual Maximum is decreased from 1,575 AF to 1,305 AF, as shown above under "TIER 1 ANNUAL MAXIMUM (90% of Base Allocation)"
- C. Purchase Commitment is decreased from 5,250 AF to 4,710 AF, as shown above under "PURCHASE COMMITMENT"
- D. Term is five (5) years from January 1, 2008, as shown above under "TERM" to clarify that the term of the original agreement has not changed.
- E. Effective date of the increases in Base Allocation, Tier 1 Annual Maximum and Purchase Commitment is January 1, 2010, as shown above under "EFFECTIVE DATE".

**PURCHASE AGREEMENT FOR IMPORTED WATER TO BE PROVIDED BY
CENTRAL BASIN MUNICIPAL WATER DISTRICT**

PURCHASER: Orchard Dale Water District

BASE ALLOCATION: 1,450 acre-feet (AF)

TIER 1 ANNUAL MAXIMUM (90% of Base Allocation): 1,305 AF

PURCHASE COMMITMENT (60% of Base Allocation x 3): 2,610 AF

TERM: 3 Years

EFFECTIVE DATE: January 1, 2010

Definitions of capitalized terms used in this Purchase Agreement are provided in Exhibit 1.

COMMITMENTS

1. Central Basin Municipal Water District (Central Basin) agrees to sell Imported Water to Purchaser up to the Tier 1 Annual Maximum amount at the then current Tier 1 Rate. Imported Water sold to Purchaser in an amount greater than the Tier 1 Annual Maximum shall be sold at the Tier 2 Rate.
2. Purchaser agrees to purchase no less than the Purchase Commitment of Imported Water from Central Basin during the Term.
3. If Purchaser's actual Imported Water purchases during the Term are less than the Purchase Commitment, Purchaser agrees to pay Central Basin the undelivered balance of the Purchase Commitment at the average of the Tier 1 Supply Rate in effect during the Term. Purchaser agrees to pay such amount to Central Basin no later than six months after billing.
4. The rates applicable to Imported Water under this Purchase Agreement could change from time to time as determined by the Central Basin Board of Directors. The rates as of the effective date of this Purchase Agreement are shown in Exhibit 1.

AMENDMENTS AND RENEWALS

1. Not later than August 1 of each year during the Term, Purchaser may provide a written request to Central Basin to change the Base Allocation for the following calendar year. The process for making the change is described in Exhibit 2. Central Basin shall determine whether such request, and any similar requests from other purchasers, can be accommodated. Central Basin staff shall notify Purchaser in writing no later than October 31 of that year as to its determination regarding the request. An adjustment to a Purchaser's base allocation will be reflected in an amendment to the Purchase Agreement, to be effective the first day of the calendar year following the request.

2. Not later than August 1, 2012, Purchaser may provide written notice to District of its determination to extend this Purchase Agreement for an additional 5-year period.

WATER SERVICE

1. The Metropolitan Water District of Southern California (MWDSC) supplies Imported Water sold by Central Basin under this Purchase Agreement. MWDSC shall use its reasonable best efforts to deliver water when needed by the Purchaser during the Term. There shall be no default by Central Basin under this Purchase Agreement if MWDSC fails to deliver water to the Purchaser.
2. Purchase Agreement does not convey any right or confer any entitlement to Purchaser to receive Imported Water through MWDSC distribution system.
3. Imported Water delivered to the Purchaser under this Purchase Agreement shall be subject to reduction in accordance with the policies and principles governing the allocation of water by MWDSC to its member agencies. In the event MWDSC Board of Directors determines to reduce, interrupt or suspend deliveries of Imported Water, any outstanding balance of the Purchase Commitment at the end of the Term shall be reduced by the reduction in Imported Water made available to the Purchaser under this Purchase Agreement.

MISCELLANEOUS

This Purchase Agreement will apply to and bind the successors and assigns of the Purchaser and Central Basin.

This Purchase Agreement is executed by the duly authorized officers of the Central Basin Municipal Water District and Orchard Dale Water District, to be effective January 1, 2010.

CENTRAL BASIN MUNICIPAL
WATER DISTRICT

ORCHARD DALE WATER DISTRICT

By: _____

Art Aguilar
General Manager

By: _____

Title: General Manager

Exhibit 1
Imported Water Purchase Agreement
DEFINITIONS

“Base Allocation” means the Purchaser’s share of Central Basin’s base amount with MWDSC (defined as the “Initial Base Demand” in Central Basin’s purchase order with MWDSC). The Purchaser’s Base Allocation is used to calculate both the Tier 1 Annual Maximum (90% of Base Allocation) and the Purchase Commitment (60% of Base Allocation times five). Initially, the Base Allocation is determined as the five-year average of Purchaser’s non-interruptible imported water purchases from Central Basin, from fiscal years ending 2001 through 2006, plus a prorated adjustment to account for Central Basin’s Initial Base Demand. As described in the Adjustments and Renewals section above, Base Allocation may be increased or decreased if Central Basin can accommodate a Purchaser’s request.

“Imported Water” means non-interruptible, imported water supplied by MWDSC and sold by Central Basin to Purchaser. Imported Water does not include Long-Term Seasonal Storage Service and other surplus categories of supplies.

“Purchaser” means a customer of Central Basin service area that has entered into a Purchase Agreement with Central Basin.

“Purchase Commitment” means the amount of Imported Water that Purchaser agrees to purchase from Central Basin. Purchase Commitment must be at least 60% of the Base Allocation times five. Deliveries of surplus imported water supplies, including but not limited to Long-Term Seasonal Storage Service, will not count towards the Purchase Commitment.

“Term” means the term of this Purchase Agreement as specified above.

“Tier 1 Annual Maximum” means an amount equal to 90% of the Base Allocation.

“Tier 1 Rate” means the price charged by Central Basin for deliveries of Imported Water to Purchaser in an amount up to the Tier 1 Annual Maximum. The initial Tier 1 Rate is \$557 per acre-foot.

“Tier 2 Rate” means the price charged by Central Basin for deliveries of Imported Water to Purchaser in an amount greater than the Tier 1 Annual Maximum. The initial Tier 2 Rate is \$655 per acre-foot.

“Tier 1 Supply Rate” means MWDSC per acre-foot Tier 1 Supply Rate, as determined from time to time by MWDSC Board of Directors. The initial Tier 1 Supply Rate is \$73 per acre-foot.

“Tier 2 Supply Rate” means Metropolitan’s per acre-foot Tier 2 Supply Rate, as determined from time to time by Metropolitan’s Board of Directors. The initial Tier 2 Supply Rate is \$171 per acre-foot.

Exhibit 2

Imported Water Purchase Agreement BASE REALLOCATION PROCESS

Background

In order to receive a greater amount of Tier 1 water for its customers, Central Basin has committed to purchasing supply from MWDSC. It is Central Basin's goal that the sum of Purchase Commitments of Central Basin's customer agencies must always equal Central Basin's commitment to MWDSC.

The Base Allocations and the Reallocation process are intended to maintain a full allocation of Central Basin's Tier 1-priced water to all Purchasers (customer agencies that have entered into Purchase Agreements with Central Basin) in an objective manner.

The Base Allocation determines the Purchase Commitment (60% of Base Allocation times five) and Tier 1 Annual Maximum (90% of Base Allocation) for the Purchaser.

Reallocation Process Outline

- Central Basin sends out notices to each Purchaser by May of each year during the term of the agreement advising the Purchaser of the status of their purchases to date and asking if each wishes to make changes to their base allocation. Requests for changes must be received by August 1 of each year.
- Central Basin will compare any request(s) for increase in Base Allocation to any request(s) for decrease. Central Basin will accommodate requests to the extent that the total of base allocation increases does not exceed the total of base allocated decreases. If more than one Purchaser requests an increase or decrease, adjustments will be made on pro-rata basis according to each Purchaser's relative share of the total request (see Reallocation Example below).
- Central Basin will respond in writing to a Purchaser's request by October 31. The Purchaser could receive less as an adjustment than what was requested.

Reallocation Example

	Initial Base (AF)	Request (AF)	Relative Share	Adjustment (AF)	New Base (AF)
Purchaser A	3,000	-500	58.8%	-382	2,618
Purchaser B	1,700	-350	41.2%	-268	1,432
Total of Requests for Decrease = -850			100%	-650	
Purchaser C	500	+100	15.4%	+100	600
Purchaser D	650	+250	38.5%	+250	900
Purchaser E	420	+300	46.1%	+300	720
Total of Requests for Increase = +650			100%	+650	
Total Base	6,270				6,270

Appendix I

ODWD Annual Water Quality Report

ORCHARD DALE WATER DISTRICT

2010 CONSUMER CONFIDENCE REPORT

Since 1991, California water utilities have been providing information on water served to its consumers. This report is a snapshot of the tap water quality that we provided last year. Included are details about where your water comes from, how it is tested, what is in it, and how it compares with state and federal limits. We strive to keep you informed about the quality of your water, and to provide a reliable and economic supply that meets all regulatory requirements.



Where Does My Tap Water Come From?

Your tap water comes from 2 sources: groundwater and surface water. We pump groundwater from local, deep wells. We also use Metropolitan Water District of Southern California's (MWD) surface water from both the Colorado River and the State Water Project in northern California. These water sources supply our service area shown on the adjacent map. The quality of our groundwater and MWD's surface water supplies is presented in this report.

How is My Drinking Water Tested?

Your drinking water is tested regularly for unsafe levels of chemicals, radioactivity and bacteria at the source and in the distribution system. We test weekly, monthly, quarterly, annually or less often depending on the substance. State and federal laws allow us to test some substances less than once per year because their levels do not change frequently. All water quality tests are conducted by specially trained technicians in state-certified laboratories.

What Are Drinking Water Standards?

The U.S Environmental Protection Agency (USEPA) limits the amount of certain substances allowed in tap water. In California, the Department of Public Health (Department) regulates tap water quality by enforcing limits that are at least as stringent as the USEPA's. Historically, California limits are more stringent than the Federal ones.

There are two types of these limits, known as standards. Primary standards protect you from substances that could potentially affect your health. Secondary standards regulate substances that affect the aesthetic qualities of water. Regulations set a Maximum Contaminant Level (MCL) for each of the primary and secondary standards. The MCL is the highest level of a substance that is allowed in your drinking water.

Public Health Goals (PHGs) are set by the California Environmental Protection Agency. PHGs provide more information on the quality of drinking water to customers, and are similar to their federal counterparts, Maximum Contaminant Level Goals (MCLGs). PHGs and MCLGs are advisory levels that are non-enforceable. Both PHGs and MCLGs are concentrations of a substance below which there are no known or expected health risks.

How Do I Read the Water Quality Table?

Although we test for over 100 substances, regulations require us to report only those found in your water. The first column of the water quality table lists substances detected in your water. The next columns list the average concentration and range of concentrations found in your drinking water. Following are columns that list the MCL and PHG or MCLG, if appropriate. The last column describes the likely sources of these substances in drinking water.

To review the quality of your drinking water, compare the highest concentration and the MCL. Check for substances greater than the MCL. Exceedence of a primary MCL does not usually constitute an immediate health threat. Rather, it requires testing the source water more frequently for a short duration. If test results show that the water continues to exceed the MCL, the water must be treated to remove the substance, or the source must be removed from service.

Why Do I See So Much Coverage in the News About the Quality Of Tap Water?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, including viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming;

- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems;
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the Department prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791). You can also get more information on tap water by logging on to these helpful web sites:

- www.epa.gov/OGWDW (USEPA's web site)
- www.cdph.ca.gov (Department web site)

If present, elevated levels of lead can cause serious health problem, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with services lines and home plumbing. Orchard Dale Water District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Should I Take Additional Precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The USEPA/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection of *Cryptosporidium* and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Source Water Assessment

MWD completed an assessment of its Colorado River and State Water Project supplies in 2002. Colorado River supplies are considered most vulnerable to recreation, urban/storm water runoff, increasing urbanization in the watershed, and wastewater. State Water Project supplies are considered most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater. A copy of the assessment can be obtained by contacting MWD at (213) 217-6850.

Orchard Dale Water District purchases its groundwater from La Habra Heights County Water District. The La Habra Heights County Water District conducted an assessment of its groundwater supplies in 2003. Groundwater supplies are considered most vulnerable to surface water recreational areas, chemical/petroleum pipelines, and other animal operations. A copy of the approved assessment may be obtained by contacting Michael Gualtieri at (562) 697-6769.

How Can I Participate in Decisions On Water Issues That Affect Me?

The public is welcome to attend Board meetings the second Wednesday of each month at 6:00 p.m. at the District's office located at 13819 E. Telegraph Road, Whittier, CA 90604.

How Do I Contact My Water Agency If I Have Any Questions About Water Quality?

If you have specific questions about your tap water quality, please contact Thomas Coleman at (562) 941-0114.

Some Helpful Water Conservation Tips

- Fix leaky faucets in your home – save up to 20 gallons every day for every leak stopped
- Save between 15 and 50 gallons each time by only washing full loads of laundry
- Adjust your sprinklers so that water lands on your lawn/garden, not the sidewalk/driveway – save 500 gallons per month
- Use organic mulch around plants to reduce evaporation – save hundreds of gallons a year

www.ODWD.ORG

ORCHARD DALE WATER DISTRICT 2010 CONSUMER CONFIDENCE REPORT

Results are from the most recent testing performed in accordance with state and federal drinking water regulations

PRIMARY STANDARDS MONITORED AT THE SOURCE-MANDATED FOR PUBLIC HEALTH

ORGANIC CHEMICALS (µg/l)	GROUNDWATER		MWD'S SURFACE WATER		PRIMARY MCL	MCLG or PHG	MAJOR SOURCES IN DRINKING WATER
	AVERAGE	RANGE	AVERAGE	RANGE			
	(k)	(k)	(k)	(k)			
INORGANICS Sampled from 2008 to 2010 (b)							
Aluminum (mg/l)	ND	ND	0.14	ND - 0.23	1	0.6 (a)	Erosion of natural deposits; residue from surface water treatment processes
Arsenic (µg/l)	2.8	2.1-3.8	2.6	ND - 3.2	10	0.004 (a)	Erosion of natural deposits; glass/electronics production wastes; runoff
Barium (mg/l)	ND	ND	0.07	ND - 0.13	1	2 (a)	Oil drilling waste and metal refinery discharge; erosion of natural deposits
Fluoride (mg/l) (i)	0.27	0.2 - 0.36	0.80	0.4 - 1.0	2.0	1 (a)	Erosion of natural deposits, water additive that promotes strong teeth
Nitrate (mg/l as NO3)	12.7	9.6 - 17	0.90	ND - 3.15	45	45 (a)	Runoff and leaching from fertilizer use/septic tanks/sewage, natural erosion
RADIOLOGICAL - (pCi/l) Analyzed 4 consecutive quarters every 4 years (results are from 2007 to 2010) (b)							
Gross Alpha	2.2	0.5 - 4.2	4.7	ND-9.3	15 (d)	0	Erosion of natural deposits
Gross Beta	NA	NA	2.8	ND-9.7	50 (d)	0	Decay of natural and man-made deposits
Radium 226	0.12	0.03 - 0.21	ND	ND		0.05	Erosion of natural deposits
Radium 228	0.32	0.06 - 0.53	ND	ND	5 (c)	0.019	Erosion of natural deposits
Uranium	2.5	1.6-3.2	2.7	1.6-3.7	20 (d)	0.43 (a)	Erosion of natural deposits

PRIMARY STANDARDS MONITORED IN THE DISTRIBUTION SYSTEM - MANDATED FOR PUBLIC HEALTH

MICROBIALS	DISTRIBUTION SYSTEM		PRIMARY MCL	MCLG or PHG	
	AVERAGE # POSITIVE	RANGE OF # POSITIVE			
Total Coliform Bacteria	0	0	< 1 positive	0	Naturally present in the environment
Fecal Coliform and E.Coli Bacteria	0	0	0	0	Human and animal fecal waste
No. of Acute Violations	0	0	-	-	

MICROBIALS	DISTRIBUTION SYSTEM		PRIMARY	MCLG	
	AVERAGE	RANGE			
Turbidity (NTU)	0.1	<0.1 - 0.5	TT	-	Soil runoff

DISINFECTION BY-PRODUCTS (e) AND DISINFECTION RESIDUALS	DISTRIBUTION SYSTEM		PRIMARY MCL	MCLG or PHG	
	HIGHEST RUNNING ANNUAL AVERAGE	RANGE			
Total Trihalomethanes-TTHMS (µg/l)	25.9	2.4 - 40.4	80	-	By-product of drinking water chlorination
Haloacetic Acids (µg/l)	9.2	ND - 14.6	60	-	By-product of drinking water disinfection
Total Chlorine Residual (mg/l)	1.16	0.21 - 3.00	4.0 (f)	4.0 (g)	Drinking water disinfectant added for treatment

AT THE TAP PHYSICAL CONSTITUENTS 30 sites sampled in 2008	DISTRIBUTION SYSTEM		PRIMARY MCL	MCLG or PHG	
	90 th ile	# OF SITES ABOVE THE AL			
Copper (mg/l)	0.39 (h)	0	1.3 AL	0.3 (a)	Internal corrosion of household plumbing, erosion of natural deposits
Lead (µg/l)	ND (h)	0	15 AL	2 (a)	Internal corrosion of household plumbing, industrial manufacturer discharges

SECONDARY STANDARDS MONITORED AT THE SOURCE-FOR AESTHETIC PURPOSES

Sampled from 2008 to 2010 (b)

	GROUNDWATER		MWD'S SURFACE WATER		SECONDARY MCL	MCLG or PHG	
	AVERAGE	RANGE	AVERAGE	RANGE			
Aggressiveness Index (corrosivity)	12.8	12-13	12.1	12.0 - 12.3	Non-corrosive	-	Natural/industrially-influenced balance of hydrogen/carbon/oxygen in water
Aluminum (µg/l) (i)	ND	ND	140	ND - 230	200	600 (a)	Erosion of natural deposits, surface water treatment process residue
Chloride (mg/l)	92.3	82 - 100	83.3	67 - 94	500	-	Runoff/leaching from natural deposits, seawater influence
Color (color units)	ND	ND	1	1-2	15	-	Naturally-occurring organic materials
Conductivity (µS/cm)	907.5	790 - 1000	833.3	460 - 1000	1,600	-	Substances that form ions when in water, seawater influence
Iron (µg/l)	32.5	ND-130	ND	ND	300	-	Leaching from natural deposits
Manganese (µg/l)	ND	ND	ND	ND	50	-	Leaching from natural deposits
Odor (threshold odor number)	ND	ND	2.3	2.0 - 3.0	3	-	Naturally-occurring organic materials
Sulfate (mg/l)	135	120-150	167.7	55 - 250	500	-	Runoff/leaching from natural deposits, industrial wastes
Total Dissolved Solids (mg/l)	590	520 - 670	496.7	290 - 630	1,000	-	Runoff/leaching from natural deposits
Turbidity (NTU)	0.2	ND - 1.1	0.04	0.03 - 0.16	5	-	Soil runoff

SECONDARY STANDARDS MONITORED IN THE DISTRIBUTION SYSTEM-FOR AESTHETIC PURPOSES

GENERAL PHYSICAL CONSTITUENTS	DISTRIBUTION SYSTEM		SECONDARY MCL	MCLG or PHG	
	AVERAGE	RANGE			
Color (color units)	<3	<3	15	-	Naturally-occurring organic materials
Odor (threshold odor number)	1	1	3	-	Naturally-occurring organic materials

ADDITIONAL CHEMICALS OF INTEREST

Sampled from 2008 to 2010 (b)

	GROUNDWATER		MWD'S SURFACE WATER	
	AVERAGE	RANGE	AVERAGE	RANGE
Alkalinity (mg/l)	160	160.0	106	63 - 130
Boron (µg/l)	220	210 - 230	150	120 - 220
Bromate (µg/l)	NA	NA	NA	NA
Calcium (mg/l)	88	66-110	53	26 - 71
Magnesium (mg/l)	18	14 - 22	21.7	11 - 28
N-Nitrosodimethylamine (ug/l)	NA	NA	0.001	ND - 0.005
Perchlorate (µg/l)	ND	ND	ND	ND
pH (standard unit)	7.8	7.5-8.0	8.0	7.5 - 8.6
Potassium (mg/l)	4.5	4.3 - 4.6	4	2.5 - 3.9
Sodium (mg/l)	67.3	61 - 72	85.3	58 - 98
Total Hardness (mg/l)	292.5	220 - 360	216.7	84 - 300
Total Organic Carbon (mg/l)	0.62	0.55 - 0.72	1.9	1.3 - 2.4
Vanadium (µg/l)	NA	NA	2.7	ND - 5.6

FOOTNOTES

- (a) California Public Health Goal (PHG). Other advisory levels listed in this column are federal Maximum Contaminant Level Goals (MCLGs).
- (b) Indicates dates sampled for groundwater sources only.
- (c) Combined Radium 226 + Radium 228 has a Maximum Contaminant Level (MCL) of 5 pCi/L.
- (d) MCL compliance based on 4 consecutive quarters of sampling.
- (e) Running annual average used to calculate average, range, and MCL compliance.
- (f) Maximum Residual Disinfectant Level (MRDL)
- (g) Maximum Residual Disinfectant Level Goal (MRDLG)
- (h) 90th percentile from the most recent sampling at selected customer taps.
- (i) Aluminum has primary and secondary standards.
- (j) MWD started adding fluoride at each treatment plant in fall 2007. MWD was in compliance with the provisions of the State's requirements
- (k) Over 50 regulated and unregulated organic chemicals were analyzed. None were detected at or above the reporting limit in groundwater or surface water sources.

ABBREVIATIONS

- < = less than
- mg/l = milligrams per liter or parts per million (equivalent to 1 drop in 42 gallons)
- NA = constituent not analyzed
- ND = constituent not detected at the reporting limit
- ng/l = nanograms per liter or parts per trillion (equivalent to 1 drop in 42,000,000 gallons)
- SI = saturation index
- uS/cm = microSiemen per centimeter

NTU = nephelometric turbidity units
pCi/l = picoCuries per liter
µg/l = micrograms per liter or parts per billion (equivalent to 1 drop in 42,000 gallons)

DEFINITIONS

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

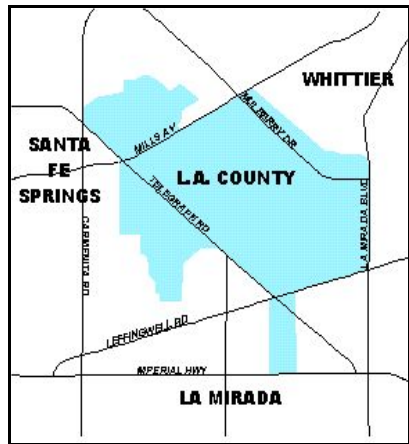
Primary Drinking Water Standard (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Water Standard (SDWS): MCLs and MRDLs for contaminants that affect the aesthetic qualities of water.

EL DISTRITO DE AGUA DE ORCHARD DALE

INFORME DE CONFIANZA DE CONSUMIDOR de 2010

Desde 1991, las agencias proveedoras de recursos hidráulicos de California han emitido información sobre el agua que se provee al consumidor. Este informe es una copia del informe sobre la calidad del agua potable que le proveímos el año pasado. Incluimos detalles sobre el origen del agua que toma, cómo se analiza, que contiene, y cómo se compara con los límites estatales y federales. Nos esforzamos por mantenerle informado sobre la calidad de su agua, y proveerle un abastecimiento confiable y económico que cumpla con todos los requisitos.



¿De Dónde Proviene el Agua que Tomo?

Su agua de la llave proviene de 2 fuentes: de las aguas naturales (subterránea) y de aguas superficiales (de los ríos). Bombeamos aguas naturales de profundos pozos locales. También usamos agua superficial de la agencia Metropolitan Water District del Sur de California (MWD) importada del Río Colorado y del proyecto State Water Project del Norte de California. Estas dos fuentes de agua nos abastecen en las áreas de servicio que se muestran en el mapa adjunto. Este reporte informa sobre la calidad de nuestra agua subterránea y el abastecimiento del agua superficial del MWD.

¿Cómo Se Analiza Mi Agua Potable?

El agua que toma se analiza regularmente para asegurarnos de que no halla niveles altos de sustancias químicas, de radioactividad o de bacteria en el sistema de distribución y en las tomas de servicios. Estos análisis se llevan a cabo semanal, mensual, trimestral, y anualmente o con más frecuencia, dependiendo de la sustancia analizada. Bajo las leyes estatales y federales, se nos permite analizar algunas sustancias menos frecuentemente que los periodos anuales porque los resultados no cambian.

¿Cuales Son Los Estándares del Agua Potable?

La Agencia federal de Protección al Medio Ambiente (USEPA) impone los límites de las cantidades de ciertos contaminantes en el agua potable. En California, el Ministerio de Asuntos Exteriores de la Salud Pública (Departamento) regula la calidad de agua del grifo haciendo cumplir límites que son al menos tan rigurosos como el USEPA'S. Historicamente, los estandares de California han sido más estrictos que los federales.

Hay dos tipos de límites conocidos como estándares. Los estándares primarios lo protegen de sustancias que potencialmente podrían afectar su salud. Las normas establecen los Niveles Contaminantes Máximos (MCL, en inglés) que se permite del contaminante primario o secundario en el agua de beber. Los abastecedores de agua deben asegurarse de que la calidad de esta cumpla con los Niveles Contaminantes Máximos (o MCLs, en inglés). No todas las sustancias tienen un Nivel Contaminante Máximo. El plomo y el cobre, por ejemplo, son regulados, por cierto nivel de acción. Si cualquier sustancia química sobrepasa el nivel de acción, se dará la necesidad de un proceso de tratamiento para rebajar los niveles en el agua de beber. Los abastecedores de agua deben cumplir con los Niveles Contaminantes Máximos para asegurar la calidad del agua.

Las Metas para la Salud Pública (MSP [o PHGs, en inglés]) son establecidas por la agencia estatal de California-EPA. Las PHGs proveen más información con respecto a la calidad del agua, y son similares a los reglamentos federales nombrados Metas para Los Niveles de Contaminante *Maximos* (MNCM [o MCLGs, en inglés]). Las PHGs y MCLGs son metas a nivel recomendable. Las PHG y MCLG son ambas definidas como los niveles de contaminantes en el agua potable por debajo de los niveles donde no se esperan riesgos a la salud y no enforzables. Ambos niveles PHG y MCLG son concentraciones de una sustancia en las que no hay riesgos a la salud aún conocidos.

¿Cómo Interpreto Mi Informe de Calidad del Agua?

Aunque analizamos más de 100 sustancias, las normas nos requireren que reportemos solo aquellas que se encuentran en el agua. La primer columna en la tabla de la calidad de agua muestra la lista de las sustancias detectadas en el agua. La siguiente columna muestra la lista de la concentración promedio y el rango de concentraciones que se hallan encontrado en el agua que usted toma. En seguida están las listas de el MCL, el PHG y el MCLG, si estos son apropiados. La última columna describe las probables fuentes u origen de las sustancias detectadas en el agua potable.

Para revisar la calidad de su agua de beber, compare los valores por encima del promedio, mínimos y máximos y el Nivel Contaminante Máximo. Revise todos los químicos que se encuentran por encima del Nivel Contaminante Máximo. Si los químicos sobrepasan el Nivel Contaminante Máximo no significa que sea detrimental a la salud de inmediato. Más bien, se requiere que se realicen análisis más frecuentemente en el abastecimiento del agua por un corto período. Si los resultados muestran sobrepasar el MCL, el agua debe ser tratada para remover esa sustancia, o el abastecimiento de esta debe decomisionarse.

¿Por Qué Hay Tanta Publicidad Sobre La Calidad Del Agua Potable?

Las fuentes del agua potable (de ambas agua de la llave y agua embotellada) incluye ríos, lagos, arroyos, lagunas, embalses, manantiales, y pozos. Al pasar el agua por la superficie de los suelos o por la tierra, se disuelven minerales que ocurren al natural, y en algunas ocasiones, material radioactivo, al igual que pueden levantar sustancias generadas por la presencia de animales o por actividades humanas.

Entre los contaminantes que pueden existir en las fuentes de agua se incluyen:

- Contaminantes microbiales como los virus y la bacteria, los que pueden venir de las plantas de tratamiento de aguas negras, de los sistemas sépticos, de las operaciones de ganadería, y de la vida salvaje;
- Contaminantes inorgánicos, como las sales y los metales, los cuales pueden ocurrir naturalmente o como resultado del desagüe pluvial, industrial, o de alcantarillado, producción de gas natural y petróleo, minas y agricultura.
- Pesticidas y herbicidas, los cuales pueden venir de varias fuentes tales como la agricultura, del desagüe pluvial, y de usos residenciales;
- Contaminantes de otras sustancias químicas orgánicas, incluyendo químicos orgánicos volátiles y sintéticos que son productos de procesos industriales y de la producción de petróleo, y que pueden provenir de las estaciones de gasolina, desagües pluviales urbanos, y agricultura aplicación y de sistemas sépticos;
- Contaminantes radioactivos, los cuales pueden ocurrir naturalmente o que pueden ser resultados de las actividades de la producción de gas natural y minería.

Para asegurarse que el agua potable sea saludable, la USEPA y el Departamento impone reglamentos que limitan las cantidades de ciertos contaminantes en el agua que los sistemas públicos de agua proveen. Los reglamentos de Departamento también establecen límites de contaminantes en el agua embotellada la cual debe proveer la misma protección a la salud pública.

Toda el agua potable, incluyendo el agua embotellada, puede contener cantidades pequeñas de ciertos contaminantes. La presencia de contaminantes no necesariamente indica que haya algún riesgo de salud. Para más información acerca de contaminantes y riesgos a la salud favor de llamar a la USEPA encargada de proteger el agua potable al teléfono (1-800-426-4791). Usted puede obtener más información sobre el agua potable al conectarse al Internet en los siguientes domicilios:

- www.epa.gov/OGWDW (el sitio Web del USEPA)
- www.cdph.ca.gov (sitio Web de Departamento)

Si presente, los niveles elevados del plomo pueden causar el problema de salud serio, sobre todo para mujeres embarazadas y chiquitos. El plomo en el agua potable es principalmente de materiales y componentes asociados con líneas de servicios y a casa fontanería. El Distrito de Agua de Orchard Dale es responsable de proporcionar el agua potable de alta calidad, pero no puede controlar la variedad de materiales usados en la fontanería de componentes. Cuando su agua ha estado sentándose durante varias horas, usted puede minimizar el potencial para la exposición de plomo limpiando con agua su grifo durante 30 segundos a 2 minutos antes de usar el agua para beber o cocinarse. Si usted está preocupado por el plomo en su agua, usted puede desear hacer probar su agua. La información en el plomo en el agua potable, probando métodos, y pasos que usted puede tomar para minimizar la exposición está disponible de la Línea directa de Agua Potable Segura o en [http:// www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

¿Debería Tomar Otras Precauciones?

Algunas personas pueden ser más vulnerables a los contaminantes en el agua potable que el público en general. Las personas que tienen problemas inmunológicos, o sea esas personas que estén en tratamiento por medio de quimioterapia cancerosa; personas que tienen órganos transplantados, o personas con SIDA o desórdenes inmunológicos, personas de edad avanzada, y los bebés que son particularmente susceptibles a ciertas infecciones. Estas personas deben de consultar a sus proveedores de salud médica. Las guías de la USEPA/Centros de Control de Enfermedades aconsejan cómo disminuir los riesgos para prevenir la infección de *Cryptosporidium* y otros contaminantes microbiales están disponibles por teléfono de la USEPA encargada de proteger el agua potable al teléfono (1-800-426-4791).

Valoración de su Abastecimiento de Agua

El distrito Metropolitano de agua del Sur de California completo una valoración de su abastecimiento del Río Colorado y del Proyecto de Agua del Estado en el 2002. El abastecimiento del Río Colorado es considerado más vulnerable a la recreación, al agua que corre de la ciudad después de una tormenta, a la creciente urbanización en la cuenca, y aguas residuales. El Proyecto de abastecimiento de agua del Estado es considerado más vulnerable al agua que corre de la ciudad después de una tormenta, a la fauna, la agricultura, la recreación, y aguas residuales. Teléfono el distrito Metropolitano de agua del Sur de California para un copie de una valoración al (213) – 217-6850.

El distrito de agua de Orchard Dale adquisición de aguas subterráneas de el distrito de agua del condado de La Habra Heights. El distrito de agua del condado de La Habra Heights condujo una valoración de su abastecimiento de aguas subterráneas en el 2003. El abastecimiento de aguas subterráneas es considerado mas vulnerable al agua que corre en la superficie de las áreas de recreación; a químicos/líneas petroleras; y a operaciones de animales. Una copia de la valoración aprobada puede ser obtenida llamando a Michael Gualtieri al (562)697-6769.

¿Cómo Puedo Participar en las Decisiones Sobre Asuntos Acerca del Agua Que Me Puedan Afectar ?

El público es agradable asistir a reuniones del Consejo el segundo miércoles de cada mes en 6:00 P.M. en la oficina de distrito situada en 13819 E. Camino del telégrafo, Whittier, CA 90604.

¿Cómo Me Pongo En Contacto Con Mi Agencia del Agua Si Tengo Preguntas Sobre La Calidad Del Agua?

Si usted tiene preguntas específicas sobre la calidad del agua potable, por favor llame a Thomas Coleman (562) 941-0114.

Algunas extremidades provechosas de la conservación del agua

- Arreglar los grifos que gotean en su hogar - excepto hasta 20 galones cada día por cada detenido de fugas
- Guardar entre 15 y 50 galones por cada vez que el lavado sólo cargas completas de ropa
- Ajuste sus regaderas de modo que el agua caiga en su césped / jardín, no la acera / calzada - excepto 500 galones por mes
- Utilice pajote orgánico alrededor de las plantas para reducir la evaporación - guardar cientos de galones por año

EL DISTRITO DE AGUA DE ORCHARD DALE

INFORME DE CONFIANZA DE CONSUMIDOR de 2010

Los resultados son de las pruebas más recientes realizadas de acuerdo con regulaciones de agua potable estatales y federales

ESTANDARES PRIMARIOS SUPERVISADOS EN EL ENCOMENDADO POR FUENTE PARA SALUD PUBLICA

ORGÁNICO	AGUA SUBTERRÁNEA		EL ECHAR AGUA SUPERFICIAL DEL MWD		PRIMARIA	MCLG	FUENTES PRINCIPALES EN AGUA POTABLE
	DESCUBRIMIENTO DE NIVEL	VARIEDAD DE DESCUBRIMIENTO	DESCUBRIMIENTO DE NIVEL	VARIEDAD DE DESCUBRIMIENTO	MCL	or PHG	
PRODUCTOS QUÍMICOS (µg/l)							
	(k)	(k)	(k)	(k)			

INORGANICS Probado a partir de 2008 hasta 2010 (b)							
Aluminio (mg/l)	ND	ND	0.14	ND - 0.23	1	0.6 (a)	Erosión de depósitos naturales; residuo de procesos de tratamiento de echar agua superficiales
Arsénico (µg/l)	2.8	2.1-3.8	2.6	ND - 3.2	10	0.004 (a)	Erosión de depósitos naturales; basura de producción de cristal/electrónica; partido de desempate
Bario (mg/l)	ND	ND	0.07	ND - 0.13	1	2 (a)	Petróleo que taladra descarga de refinería de desecho y metálica; erosión de depósitos naturales
Fluoruro (mg/l) (j)	0.27	0.2 - 0.36	0.80	0.4 - 1.0	2.0	1 (a)	La erosión de depósitos naturales, aditivo de echar agua que promueve dientes fuertes
Nitrato (mg/l como NO3)	12.7	9.6 - 17	0.90	ND - 3.15	45	45 (a)	Partido de desempate y liviando de tanques/aguas residuales de uso de fertilizante / tanques/aguas residuales sépticos, erosión natural

RADIOLÓGICO - (pCi/l) Analizado 4 cuartos consecutivos cada 4 años (los resultados son a partir de 2007 hasta 2010) (b)							
Gross Alpha	2.2	0.5 - 4.2	4.7	ND-9.3	15 (d)	0	Erosión de depósitos naturales
Gross Beta	NA	NA	2.8	ND-9.7	50 (d)	0	Decaimiento de depósitos naturales y artificiales
Radium 226	0.12	0.09 - 0.21	ND	ND		0.05	Erosión de depósitos naturales
Radium 228	0.32	0.06 - 0.53	ND	ND	5 (c)	0.019	Erosión de depósitos naturales
Uranio	2.5	1.6-3.2	2.7	1.6-3.7	20 (d)	0.43 (a)	Erosión de depósitos naturales

ESTANDARES PRIMARIOS SUPERVISADOS EN EL SISTEMA DE DISTRIBUCION - ENCOMENDADO PARA SALUD PUBLICA

	SISTEMA DE DISTRIBUCIÓN		PRIMARIA	MCLG	
MICROBIALS	EL NÚMERO MÁS ALTO DE DESCUBRIMIENTO	VARIEDAD DE # POSITIVO	MCL	or PHG	
Bacterias de Coliform totales	0	0	< 1 positivo	0	Naturalmente presente en el ambiente
Coliform fecal y Bacterias E.Coli	0	0	0	0	Basura fecal humana y de animal
Número de Violaciones Agudas	0	0	-	-	

MICROBIALS	SISTEMA DE DISTRIBUCION		TT	-	Partido de desempate de suelo
	DESCUBRIMIENTO DE NIVEL	VARIEDAD DE DESCUBRIMIENTO			
Turbiedad (NTU)	0.1	<0.1 - 0.5			

DISINFECTION BY-PRODUCTS (e)	SISTEMA DE DISTRIBUCIÓN		PRIMARIA	MCLG	
	DESCUBRIMIENTO DE NIVEL	VARIEDAD DE DESCUBRIMIENTO	MCL	or PHG	
Total Trihalomethanes-TTHMS (µg/l)	25.9	2.4 - 40.4	80	-	Subproducto de desinfección con cloro de agua potable
Haloacetic Acids (µg/l)	9.2	ND - 14.6	60	-	Subproducto de desinfección de agua potable
Cloro Total Residual(mg/l)	1.16	0.21 - 3.00	4.0 (f)	4.0 (n)	El desinfectante de agua potable añadido para el tratamiento

EN EL GRIFO COMPONENTES FÍSICOS 22 sitios probados en 2008	SISTEMA DE DISTRIBUCIÓN		PRIMARIA	MCLG	
	90 ^o ile	# DE SITIOS ENCIMA del Nivel de Acción	MCL	or PHG	
Cobre (mg/l)	0.39 (h)	0	1.3 AL	0.3 (a)	Corrosión interna de fontanería de casa, erosión de depósitos naturales
Plomo (µg/l)	ND (h)	0	15 AL	2 (a)	Corrosión interna de fontanería de casa, descargas de fabricante industriales

ESTANDARES SECUNDARIOS SUPERVISADOS EN LA FUENTE - PARA OBJETIVOS ESTETICOS

Probado a partir de 2008 hasta 2010(b)

	AGUA SUBTERRÁNEA		EL ECHAR AGUA SUPERFICIAL DEL MWD		SECUNDARIO	MCLG	
	DESCUBRIMIENTO DE NIVEL	VARIEDAD DE DESCUBRIMIENTO	DESCUBRIMIENTO DE NIVEL	VARIEDAD DE DESCUBRIMIENTO	MCL	or PHG	
Índice de Agresividad (corrosivity)	12.8	12-13	12.1	12.0 - 12.3	No corrosivo	-	Equilibrio de Natural/industrially-influenced de hidrógeno/carbón/oxígeno en el echar agua
Aluminio (µg/l) (i)	ND	ND	140	ND - 230	200	600 (a)	La erosión de depósitos naturales, revista el residuo de proceso de tratamiento de echar agua
Cloruro (mg/l)	92.3	82 - 100	83.3	67 - 94	500	-	Runoff/leaching from natural deposits, seawater influence
El color (colorean unidades)	ND	ND	1	1-2	15	-	Materiales orgánicos naturalmente que ocurren
Conductividad (uS/cm)	907.5	790 - 1000	833.3	460 - 1000	1,600	-	Las sustancias que forman iones cuando en el echar agua, los seawater influyen
Hierro (µg/l)	32.5	ND-130	ND	ND	300	-	La lixiviación de depósitos naturales
Manganeso (µg/l)	ND	ND	ND	ND	50	-	La lixiviación de depósitos naturales
Olor (número de olor de umbral)	ND	ND	2.3	2.0 - 3.0	3	-	Natural materiales orgánicos.
Sulfate (mg/l)	135	120-150	167.7	55 - 250	500	-	Partido de desempate/lixiviación de depósitos naturales, basura industrial
Sólidos Disueltos Totales (mg/l)	590	520 - 670	496.7	290 - 630	1,000	-	Partido de desempate/lixiviación de depósitos naturales
Turbiedad (NTU)	0.2	ND - 1.1	0.04	0.03 - 0.16	5	-	Partido de desempate de suelo.

ESTANDARES SECUNDARIOS SUPERVISADOS EN EL SISTEMA DE DISTRIBUCION - PARA OBJETIVOS ESTETICOS

GENERAL	SISTEMA DE DISTRIBUCIÓN		SECUNDARIO	MCLG
COMPONENTES FÍSICOS	DESCUBRIMIENTO DE NIVEL	VARIEDAD DE DESCUBRIMIENTO	MCL	or PHG
El color (colorean unidades)	<3	<3	15	-
Clor (número de clor de umbral)	1	1	3	-

PRODUCTOS QUIMICOS ADICIONALES DE INTERES

Probado a partir de 2008 hasta 2010 (b)

	AGUA SUBTERRÁNEA		EL ECHAR AGUA SUPERFICIAL DEL MWD	
	DESCUBRIMIENTO DE NIVEL	VARIEDAD DE DESCUBRIMIENTO	DESCUBRIMIENTO DE NIVEL	VARIEDAD DE DESCUBRIMIENTO
Alkalinity (mg/l)	160	160.0	106	63 - 130
Boron (µg/l)	220	210 - 230	150	120 - 220
Bromate (µg/l)	NA	NA	NA	NA
Calcio (mg/l)	88	66-110	53	26 - 71
Magnesio (mg/l)	18	14 - 22	21.7	11 - 28
N-Nitrosodimethylamine (ug/l)	NA	NA	0.001	ND - 0.005
Perchlorate (µg/l)	ND	ND	ND	ND
pH (unidad estándar)	7.8	7.5-8.0	8.0	7.5 - 8.6
Potasio (mg/l)	4.5	4.3 - 4.6	4	2.5 - 3.9
Sodio (mg/l)	67.3	61 - 72	85.3	58 - 98
Dureza Total (mg/l)	292.5	220 - 360	216.7	84 - 300
Carbono Orgánico Total (mg/l)	0.62	0.55 - 0.72	1.9	1.3 - 2.4
Vanadio (µg/l)	NA	NA	2.7	ND - 5.6

NOTAS A PIE DE PAGINA

- (a) Objetivo de Salud Público de California (PHG). Otros niveles consultivos puestos en una lista en esta columna son objetivos de Nivel de Contaminante Máximos federales (MCLGs).
- (b) Indica fechas probadas para fuentes de agua subterránea sólo.
- (c) combinada Radio 228 Radio 226 + tiene un nivel máximo de contaminante (MCL), de 5 pCi / L.
- (d) Conformidad de MCL basada en 4 cuartos consecutivos de prueba.
- (e) El correr del promedio anual soñá calcular el promedio, la variedad, y la conformidad MCL.
- (f) Nivel Desinfectante Residual Máximo (MRDL)
- (g) Objetivo de Nivel Desinfectante Residual Máximo (MRDLG)
- (h) 90 porcentaje de la prueba más reciente en grifos de cliente seleccionados.
- (i) El aluminio tiene estándares primarios y secundarios.
- (j) la adición de fluor MWD comenzó en cada planta de tratamiento en el otoño de 2007. MWD en el cumplimiento de las disposiciones de los requisitos del Estado
- (k) Más de 50 productos químicos orgánicos regulados y no regulados fueron analizados. Ninguno fue descubierto en o encima del límite de reportaje en agua subterránea o fuentes de echar agua superficiales.

ABREVIATURAS

- <-menos que
- mg/l = los miligramos por litro o partes por millón (equivalente con 1 pasan a 42 galones)
- NA = componente no analizado
- ND = componente no descubierto en el límite de reportaje
- ng/l = el nanograms por litro o partes por billón (equivalente con 1 pasan a 42,000,000 de galones)
- uS/cm = microSiemen por centímetro

NTU = unidades de turbiedad de nephelometric pCi = picoCuries por litro
SI = Índice de saturación µg/l = los microgramos por litro o partes por mil millones (equivalente con 1 pasan a 42,000 galones)

DEFINICIONES

- Nivel de Contaminante Máximo (MCL):** el nivel más alto de un contaminante que es permitido en el agua potable. MCLs primarios son puestos cuando cerca del PHGs (o MCLGs) como es económicamente y tecnológicamente factible. Se pone que MCLs secundario proteja el olor, el gusto, y el aspecto del agua potable.
- Objetivo de Nivel de Contaminante Máximo (MCLG):** el nivel de un contaminante en el agua potable abajo la cual no hay ningún riesgo conocido o esperado a la salud. Los MCLGs son puestos por la Protección del Medio Ambiente Estadounidense Agencia.
- Nivel Desinfectante Residual Máximo (MRDL):** El nivel más alto de un desinfectante permitido en agua potable. Hay pruebas que la adición de un desinfectante es necesaria para el control de contaminantes microbianos.
- Objetivo de Nivel Desinfectante Residual Máximo (MRDLG):** El nivel de un desinfectante de agua potable abajo el cual no hay ningún riesgo conocido o esperado a la salud. Los MRDLGs no reflejan los beneficios del uso de desinfectantes para controlar contaminantes microbianos.
- Objetivo de Salud Público (PHG):** el nivel de un contaminante en el agua potable abajo la cual no hay ningún riesgo conocido o esperado a la salud. Los PHGs son puestos por la Agencia de Protección Ambiental de California.
- Técnica de Tratamiento (TT):** un proceso requerido tuvo la intención de reducir el nivel de un contaminante en el agua potable.
- Nivel de Acción Regulador (AL-):** la concentración de, de excedido, provoca el tratamiento u otras exigencias que un sistema de echar agua debiera seguir.
- Estándar de Agua Potable Primario (PDWS):** el MCLs y MRDLs para contaminantes que afectan la salud junto con su escucha y reportaje de exigencias, y exigencias de tratamiento de echar agua.
- Secundaria de agua estándar (SDWS):** MRDLs y MCL para contaminantes que afectan las cualidades estéticas del agua.

ORCHARD DALE WATER DISTRICT 2009 CONSUMER CONFIDENCE REPORT

Appendix J

CBMWD

Imported Water Supply Allocation Policy

Central Basin Municipal Water District Imported Water Supply Allocation Policy

Introduction

In April 2008, the Metropolitan Water District (MWD) Board of Directors approved a region-wide Water Supply Allocation Plan (WASP) that could be imposed on all member agencies and the retail cities and agencies they serve due to serious statewide and/or regional water shortages.

Background

Central Basin Municipal Water District (Central Basin) has established this policy for its customer cities and agencies to pass through any additional fees, charges, or penalties resulting from MWD enforcing the WASP on Central Basin. This policy will ensure that cities and agencies that exceed their allocation are individually responsible and charged should Central Basin go beyond its baseline allocation as imposed by MWD. The following describes the policies that Central Basin will implement regarding the allocation plan:

Allocation Plan Aspects

- In 2009, Central Basin implemented an imported water supply allocation plan (attached to this policy statement) consistent with MWD's WASP at the stage level imposed on Central Basin by the MWD Board of Directors. Changes by MWD to Central Basin's allocation will be communicated by Central Basin to its cities and agencies through written notice.
- This allocation plan will continue to be imposed upon all 27 cities and agencies with access to imported water deliveries in the Central Basin service area each fiscal year (FY) starting July 1, unless the MWD Board of Directors lifts or revises these allocation restrictions.
- The Central Basin service area will be limited to the amount of imported water listed in the allocation stage as imposed by the MWD Board of Directors.
- Cities and agencies with standing Imported Water Purchase Agreements with Central Basin will have access to imported water deliveries. Cities and agencies without standing Imported Water Purchase Agreements will be limited to zero imported water deliveries except for the County of Los Angeles – Los Amigos Golf Course and the Water Replenishment District of Southern California (WRD). The County of Los Angeles will continue to pay the higher Tier II rate for all imported water deliveries while WRD will be able to receive Tier I deliveries for replenishment purposes. (This is needed due to MWD curtailing all replenishment deliveries since May 2007).

- The provisions in this Imported Water Supply Allocation Policy are not intended to supersede the provisions contained in the FY 2008-2012 Imported Water Purchase Agreements executed with cities and agencies in late 2007 and implemented on January 1, 2008.
- If the Cities of Lakewood, Downey, South Gate, or the San Gabriel Valley Water Company take imported water deliveries for any reason other than an emergency situation (e.g., loss of a production well due to mechanical or contamination issues), they will be billed at the prevailing Tier I rate plus the Tier II rate.

Cities and agencies will be required to individually meet the supply reductions listed in the attachment. Central Basin staff will provide monthly reports (via email) to all cities and agencies using the attached proposed reductions. These monthly reports are being offered as a tool in order to help cities and agencies in tracking their water usage.

Water Rate & Billing Aspects

- All cities and agencies with standing purchase agreements and supply allocations (as presented in the attachment) will be billed at the appropriate prevailing Tier I and Tier 2 rates for all imported water deliveries.
- If the Central Basin service area exceeds the allocation restrictions imposed by MWD Board of Directors at the end of the allocation year, Central Basin will invoice those cities and agencies that exceeded their individual restricted supply allocation. Each city and agency that participates will be encouraged to meet their individual supply allocation listed in the attachment. The monthly report provided by Central Basin staff will provide current year-to-date usage, historical year-to-date usage and projected end-of-year usage for each of the cities and agencies.
- Should Central Basin exceed their MWD allocation restriction, each city or agency that exceeded their restricted supply allocation will be required to pay prevailing penalty rates for the portion of water that exceeded their individual restricted supply allocation as listed in the attachment. The penalty will be assessed according to the prorated share of Central Basin's penalty amount from MWD. The MWD penalty fee schedule associated with exceeding the allocation amounts will be used to determine the penalty rates.
- Should Central Basin as a whole not exceed the allocation restriction imposed by MWD, cities and agencies will not be assessed penalty charges should they exceed their individual restricted supply allocation as presented in the attachment.

Attachment

Appendix K

ODWD Rules and Regulations Governing Water Service and Water Consumers

INDEX
**RULES AND REGULATIONS GOVERNING WATER
SERVICE AND WATER CONSUMERS IN
ORCHARD DALE WATER DISTRICT**

Revised 2/9/11

SECTION 1 - WATER RATES

- 1.1 INSIDE DISTRICT RATES - REGULAR SERVICE
 - 1.1A ADDITIONAL UNIT CHARGE
- 1.2 RATES FOR SPECIAL SERVICE
 - A. FIRE PROTECTION CONNECTIONS
 - B. WATER RATES FOR USE OF CONSTRUCTION WATER
 - C. OTHER SPECIAL RATES
- 1.3 SYSTEM CONNECTION FEE

SECTION 2 - CHANGE OF WATER RATES

SECTION 3 - BILLING PROCEDURES AND PAYMENT PROVISIONS

- 3.1 READING OF METERS
- 3.2 BILLS DUE AND PAYABLE
- 3.3 PAYMENT OFFICE

SECTION 4 - NEW WATER SERVICE

- 4.1 APPLICATION FOR WATER SERVICE
- 4.2 APPLICATION CHARGE
- 4.3 DEPOSITS
- 4.4 REQUEST FOR TERMINATION
- 4.5 DISCONTINUANCE OF SERVICE
- 4.6 UNCLAIMED DEPOSITS
- 4.7 DELINQUENT CHARGES
- 4.8 ADMINISTRATIVE-SPECIAL CHARGES
- 4.9 SERVICE FOR AN IRREGULAR PERIOD
- 4.10 Residential Rental Property

SECTION 5 - NEW SERVICE INSTALLATIONS

- 5.0 SINGLE AND SEPARATE METER AND SERVICE CONNECTIONS
- 5.1 SERVICE INSTALLATION FEE
- 5.2 METER SERVICE OUTSIDE THE DISTRICT

5.3 CHANGE OF METER SIZE AND/OR LOCATION

5.4 METER INSTALLATION FOR TWO OR MORE UNITS ON SAME PROPERTY

5.4-1 METER SERVICE TO APARTMENTS OR CONDOMINIUMS

5.5 INSTALLATION NOT OTHERWISE COVERED BY THIS ORDINANCE

SECTION 6 - SERVICE CONNECTIONS AND FACILITIES ON PREMISES OF CONSUMER

6.1 SERVICE CONNECTIONS

6.2 SHUT-OFF VALVES

6.3 BACKFLOW PROTECTION - CROSS CONNECTION CONTROL

6.4 RIGHT OF ACCESS TO PREMISES OF CONSUMER

6.5 WASTE OF WATER

6.6 EMERGENCY

SECTION 7 - METER TEST AND ADJUSTMENT OF BILLS

7.1 REQUEST FOR METER TEST

7.2 TEST TO BE MADE

7.3 METER FOUND ACCURATE

7.4 ADJUSTMENT OF BILLS

A. WHEN METER ERROR OF MORE THAN 2% EXISTS

B. WHEN METER FAILS TO REGISTER

7.5 VACANT PROPERTY

SECTION 8 - UNAUTHORIZED USE OF WATER

SECTION 9 - PRESSURE CONDITIONS

SECTION 10 - NON-COMPLIANCE WITH ORDINANCE

SECTION 11 - COMPLAINT PROCEDURE

SECTION 12 - FIRE HYDRANTS

12.1 USE

12.2 UNAUTHORIZED USE

SECTION 13 - TAMPERING WITH DISTRICT FACILITIES

SECTION 14 - DAMAGE CAUSED BY CONSUMER

SECTION 15 - DISTRICT EXPENSE PRIOR TO APPLICATION

SECTION 16 - AMENDMENT OF ORDINANCE

ORDINANCE NO. 02-11
RULES AND REGULATIONS GOVERNING WATER SERVICE
AND SCHEDULE OF RATES AND CHARGES FOR CONSUMERS IN
THE ORCHARD DALE WATER DISTRICT

THE BOARD OF DIRECTORS OF ORCHARD DALE WATER DISTRICT ORDAINS RESOLUTION 07-5-4 AS FOLLOWS:

SECTION 1. - WATER RATES

SECTION 1.1 INSIDE DISTRICT RATES - REGULAR SERVICE

THE FOLLOWING WATER SERVICE RATES AND COMPENSATION ARE HEREBY FIXED AND ESTABLISHED AS THE RATES AND COMPENSATION TO BE CHARGED AND COLLECTED BY ORCHARD DALE WATER DISTRICT FOR WATER FURNISHED BY SAID DISTRICT WITHIN THE EXTERIOR BOUNDARIES THEREOF:

RATES:

METER SIZE	MONTHLY METER CHARGE	BI-MONTHLY METER CHARGE
5/8 & 3/4 INCH	\$ -0-	\$ 34.00
1 INCH	-0-	53.00
1 1/2 INCH	-0-	289.70
2 INCH	-0-	455.30
3 INCH	1,054.75	-0-
4 INCH	1,131.00	-0-
6 INCH	1,814.35	-0-

CHARGE FOR WATER:

ONE DOLLAR AND EIGHTY FIVE CENTS (\$1.85) PER HUNDRED CUBIC FEET.

SECTION 1.1A ADDITIONAL UNITS

A CHARGE OF EIGHT DOLLARS AND EIGHTY CENTS (\$8.80) PER MONTH FOR ADDITIONAL UNITS IS HEREBY FIXED AND ESTABLISHED ON ALL MULTIPLE DWELLINGS BEING SERVED THROUGH ONE METER, I.E., APARTMENTS, CONDOMINIUMS, MOBILE HOMES, ADDITIONAL HOMES AND ADDITIONAL BUSINESSES.

SECTION 1.2 RATES FOR SPECIAL SERVICE

A. FIRE PROTECTION CONNECTIONS

ALL FIRE PROTECTION CONNECTIONS SHALL BE INSTALLED DIRECTLY OFF THE DISTRICT'S MAIN PIPELINE AND WILL REQUIRE THE INSTALLATION OF A TEE, A GATE VALVE. AND A MEASURING DEVICE, I.E., METER OR DETECTOR CHECK (D.C.) AND VALVES WITH DETECTOR METER INSTALLED ON A BY-PASS. ALL INSTALLATION COSTS SHALL BE PAID FOR BY THE APPLICANT FOR SAID PRIVATE OFF-SITE FIRE PROTECTION SERVICES, AND THE RATE FOR SERVICE SHALL BE AS FOLLOWS:

<u>SIZE</u>	<u>MONTHLY CHARGE</u>
4 INCH D.C. VALVE AND METER	\$ 74.45
6 INCH D.C. VALVE AND METER	107.40
8 INCH D.C. VALVE AND METER	142.40

B. ANNUAL INFLATIONARY INCREASE

THE DISTRICT'S FIXED CHARGES, COMMODITY/USAGE RATE, FIRE SERVICE CHARGES AND "EXTRA UNIT" CHARGE, AS SET FORTH IN SECTIONS 1.1, 1.1A, AND 1.2A, ABOVE, RESPECTIVELY, SHALL EACH BE INCREASED BY THREE PERCENT (3%) PER YEAR, EFFECTIVE JUNE 1ST OF EACH YEAR FOR THE FOLLOWING NINE YEARS COMMENCING JUNE 1, 2008.

C. WATER RATES FOR USE OF CONSTRUCTION WATER

1. SERVICE CHARGE

METERED - \$90.00 PER MONTH, OR ANY PART THEREOF

2. SET-UP CHARGE

A ONE-TIME CHARGE OF \$75.00 WILL BE MADE TO COVER THE INITIAL SET-UP AND INSTALLATION OF A CONSTRUCTION METER AT THE TIME OF APPLICATION. UPON REQUEST OF THE APPLICANT AND AUTHORIZATION BY THE DISTRICT TO RELOCATE A CONSTRUCTION METER, AN ADDITIONAL CHARGE OF \$75.00 WILL BE MADE FOR EACH TIME THE METER IS RELOCATED AT THE REQUEST OF THE APPLICANT. THIS CHARGE WILL BE INCLUDED WITH THE MONTHLY BILLING MADE ON THE METER. A CHARGE OF \$400.00 WILL BE IMPOSED IF THE METER IS RELOCATED WITHOUT THE DISTRICT'S AUTHORIZATION.

3. USE CHARGE

METERED - \$2.60 PER 100 CUBIC FEET (OR 750 GALLONS)

TANK LOAD - \$2.60 PER 100 CUBIC FEET (OR 750 GALLONS)

ALL REQUESTS FOR CONSTRUCTION WATER WILL BE MADE ON APPROVED FORMS, AVAILABLE IN THE DISTRICT OFFICE AND ACCOMPANIED BY A DEPOSIT IN THE AMOUNT OF NOT LESS THAN \$3,000.00 FOR A METER. ANY COSTS INVOLVED IN SUPPLYING SUCH CONNECTIONS WILL BE PREPAID BY THE APPLICANT. THE APPLICANT SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE METER WHILE IT IS IN THE APPLICANT'S POSSESSION, AND IN THE EVENT OF SUCH DAMAGE, THE APPLICANT MUST PAY ALL REPAIR AND/OR REPLACEMENT COSTS, PLUS FIFTEEN PERCENT (15%) OVERHEAD. APPLICANT SHALL NOTIFY THE DISTRICT WHEN HE WISHES TO HAVE SERVICE RELOCATED OR DISCONTINUED. REGULAR RATES, INCLUDING MONTHLY SERVICE CHARGE, SHALL CONTINUE UNTIL SUCH NOTICE HAS BEEN RECEIVED.

WATER FURNISHED AS CONSTRUCTION WATER IS SURPLUS WATER, AVAILABLE ONLY AT THE DISCRETION OF THE DISTRICT'S GENERAL MANAGER AND MAY BE DISCONTINUED WITHOUT NOTICE. ALL WATER FURNISHED BY THE DISTRICT AS CONSTRUCTION WATER MUST BE USED ON CONSTRUCTION PROJECTS SITUATED WITHIN THE DISTRICT'S SERVICE AREA. ANY UNAUTHORIZED USE OF CONSTRUCTION WATER SHALL RESULT IN THE FORFEITURE OF THE APPLICANT'S DEPOSIT AND REMOVAL OF THE CONSTRUCTION METER. (Amended on February 9, 2011 by Resolution No. 11-2-2)

C. OTHER SPECIAL RATES

THE GENERAL MANAGER MAY ESTABLISH AND ENFORCE RATES AND COMPENSATION TO BE CHARGED AND COLLECTED BY ORCHARD DALE WATER DISTRICT FOR FURNISHING AND SUPPLYING WATER AND WATER SERVICE TO ANY INSTALLATION OF A CHARACTER NOT OTHERWISE PROVIDED FOR IN THIS ORDINANCE.

SECTION 1.3 SYSTEM CONNECTION FEE

In order for property newly served by the District to bear its proportionate share of the cost of District facilities, every applicant or developer requesting service to property not previously served by the District shall pay a system connection fee computed at a per acre rate set forth below. The charge shall be based on the gross area benefited by water service. Where applicable, blue border gross acreage of tract or parcel maps will

be used. Lacking these, the areas used will be that shown or computed from current Los Angeles County Assessor's maps. Final determination of gross area benefited shall be made by the General Manager. The System Connection Fee shall be in addition to any other charges imposed by these Rules.

Per acre rate:	\$2,130.00 (as of 3-11-98)
Minimum charge:	\$ 250.00

SECTION 2- CHANGE OF WATER RATES

The foregoing schedule of rates and charges and other provisions of these Rules and Regulations shall be subject to change and modification in accordance with California law, and any increase in rates and charges shall not take effect until such date as is specified in the action of the Board of Directors approving such increase, or as otherwise specified by or required under California law."

SECTION 3 - BILLING PROCEDURES AND PAYMENT PROVISIONS

3.1 READING OF METERS

The smaller water meters (5/8" x 3/4" through 2") shall be read by District employees as nearly bi-monthly as possible. Water meters 3" and larger and detector checks (D.C.) meters shall be read by District employees on as nearly a monthly basis as is possible and the District will as soon after each meter reading as is practical, mail to each consumer of record at his or her last address of record, a statement of his or her bill for the preceding month, or two (2) months.

3.2 BILLS DUE AND PAYABLE

All bills are due and payable upon presentation. Any bill not paid by the designated final date thereon shall be delinquent. In the event of nonpayment of an account following nineteen (19) days from date of mailing, the District shall mail a fifteen-day written notice to the consumer that the water service will be terminated unless the delinquent account is paid prior to the date set forth on the notice.

The notice will set forth the following: (a) the name and address of the consumer, (b) the amount of the delinquency, (c) the date by which payments are required to be made to avoid termination of service, (d) the procedure by which a consumer may initiate a complaint or request an investigation concerning services or charges, (e) the procedure by which a consumer may request amortization of the unpaid charges, (f) the procedure for the consumer to obtain information on the availability of financial assistance, and (g) the telephone number of a representative of the District who can provide additional information or institute arrangements for payment.

The District shall make reasonable attempts to make personal or telephonic contact with the consumer or an adult person at the residence of the consumer, at least forty-eight hours prior to termination of service

If the bill remains unpaid upon expiration of the 48-hour notice, the District may turn off, lock, and/or remove the meter, and cease rendering service to the consumer without further notice.

No service will be terminated for non-payment during pendency of any investigation of a dispute or complaint regarding a billing, or if a licensed physician certifies that the termination of service will be life-threatening to the consumer who is financially unable to pay for the service within the normal payment period and is willing to enter into an amortization agreement.

In those instances where the consumer is entitled to amortize the payment of delinquent account, the District shall be entitled to make reasonable charges as determined by the General Manager to set up the account, and shall further be entitled to interest at the rate of ten percent (10%) per annum on any unpaid delinquency. Failure to perform in accordance with the amortization agreement or failure to maintain an account in a current status during the amortization period will result in termination of service upon forty-eight hours notice.

In those instances where the District is providing residential water service through a master meter where the owner is listed as the consumer of the District, the District shall make reasonable attempts to inform the actual users of the water service when the owner's account is in arrears by means of a notice that service will be terminated in ten (10) days. The notice shall inform the users they have the right to become consumers of the District without being required to pay the amount due on the owner's delinquent account. If one or more of the actual users is willing to assume the responsibility for the entire account and there is a physical means of selectively terminating service to the actual users who have not met the requirements of the District, the District may make service available to the actual users who agree to meet the District's requirements.

3.3 PAYMENT OFFICE

Orchard Dale Water District, 13819 East Telegraph Road, Whittier, California 90604, is the only location authorized to receive payment for water bills and charges. Payments mailed and delivered by the United States Postal Service will be applied to the consumer's account. The District will not acknowledge payment as having been made until received at the District office prior to or upon the designated final date for payment.

SECTION 4 - NEW WATER SERVICE

4.1 APPLICATION FOR WATER SERVICE

Before water shall be supplied to any consumer, application shall be made to the District, which shall be in writing on a form provided by the District, signed by the applicant, and shall contain the following information necessary to process the request:

- A. Name of applicant.
- B. Address of applicant.
- C. Address of property for which service is desired.
- D. Applicant's relationship to the property for which water service is requested, e.g., owner, owner's agent, tenant, other.
- E. Date applicant desires service to be turned on.
- F. Type of service, e.g., residential, industrial, commercial.
- G. Information to establish credit.
- H. Size of connection requested.
- I. Such other pertinent information as may be required to install or begin service.

The signing and filing of the application shall constitute an agreement by the applicant to accept responsibility for all charges for water service to the property described in the application and to be bound by the ordinances and rules and regulations of the District. Water service shall not be furnished to any person against whom there are delinquent charges.

4.2 APPLICATION CHARGE

All applicants, when applying for water service for either a new water service, or a previously metered service, shall pay an application charge of thirty dollars (\$30.00). The application charge is to help defray the costs of setting up the account and is non-transferable and non-refundable. (Amended March 18, 2009 by Resolution No. 09-3-7)

4.3 DEPOSITS

Commercial Property

Businesses and apartment buildings shall deposit an amount equal to one average billing, to be determined by averaging the twelve most recent billings.

Residential Property

Homeowners or renters who establish and maintain a good credit rating with the District are not required to place a deposit with the District. However, those who receive three (3) 15-day delinquent notices within any twelve (12) month period

shall be deemed poor credit risks and will be required to deposit with the District twice the amount of an average billing, or service will be discontinued.

Consumer deposits shall be refunded without interest, after water service has been discontinued and all closing charges against the account have been paid. The deposit will be credited against the closing bill charges and any balance remaining shall then be refunded to the consumer. A consumer deposit is non-transferable.

4.4 REQUEST FOR TERMINATION

The request for termination of service and return of any deposit shall be made in person, or in writing signed by the consumer, and if in writing, the address to which the deposit or remaining balance thereof is to be mailed shall be given.

4.5 DISCONTINUANCE OF SERVICE

The General Manager shall have the right to discontinue service to any consumer who is in violation of the rules and regulations.

4.6 UNCLAIMED DEPOSITS

Any deposit or balance of deposit remaining unclaimed for six (6) months after water service has been terminated shall become the property of and paid into the general fund of the District and all rights of the consumer in such sum shall cease.

4.7 DELINQUENT CHARGES

Any consumer who has been given a 15-day notice of non-payment shall pay a charge of fifteen dollars (\$15.00). If a 48-hour notice of turnoff is given, there shall be an additional charge of fifteen dollars (\$15.00). If water service has been turned off for failure to pay a water bill, there shall be a reconnection charge of thirty dollars (\$30.00). If a request for turn-on is made after office hours or on Saturdays, Sundays or Holidays, the charge will be seventy five dollars (\$75.00). (Amended February 9, 2011 by Resolution No. 11-2-2)

4.8 ADMINISTRATIVE-SPECIAL CHARGES

Consumer payments received by the District for current or delinquent bills will be credited to consumer's account. If payment is made by check and said check is returned to the District as uncollectible, an administrative charge of thirty dollars (\$30.00) will be collected in addition to all other rates, deposits and delinquent charges. (Amended February 9, 2011 by Resolution No. 11-2-2)

4.9 SERVICE FOR AN IRREGULAR PERIOD

Where water service is required for less than a full bi-monthly billing period, the bi-monthly meter charge for such service will be pro-rated based on the number of

days such service was used during that bi-monthly period. The consumer shall be responsible for all water used until such time as the service is actually turned off.

4.10 RESIDENTIAL RENTAL PROPERTY

Applications for water service to residential rental property require service to be provided on account of the property owner or, alternatively, upon co-application by both the property owner and the tenant of the premises that will be served by the metered connection. Tenants may be required to file an affidavit with the District, signed by the owner in fee of the premises, assuming responsibility for any unpaid water charges resulting from the actuation of the service by a tenant.

SECTION 5 - NEW SERVICE INSTALLATIONS

5.0 SINGLE AND SEPARATE METER AND SERVICE CONNECTIONS

Each residence and/or building under separate ownership must be provided with a single and separate water service connection and water meter. All applications for meter service connections whether for regular consumers or for special purposes shall be submitted to the General Manager of the District for his approval as to size, location, and other features. The General Manager shall make such field inspection of the property as he deems necessary prior to approving the application.

5.1 SERVICE INSTALLATION FEE

The cost of the facilities necessary to the service installation shall be estimated by the General Manager and the sum so estimated shall be given as a deposit to the District by the applicant prior to installation. Upon completion of the work any excess over and above the deposit will be refunded. However, should the final cost of the installation exceed the estimate, the applicant shall pay the balance owing prior to the commencement of service.

5.2 METER SERVICE OUTSIDE THE DISTRICT

Requests for meter service outside of the exterior boundaries of the ORCHARD DALE WATER DISTRICT will have to be made in writing to the District and approved by the General Manager.

5.3 CHANGE OF METER SIZE AND/OR LOCATION

Should the owner of property desire a change of size and/or location of an existing meter service, he shall be charged or refunded, on a total cost basis, an amount equal to the difference in the current cost to the District of the new meter of the size to be exchanged plus the current cost to repair the meter removed, plus 15% overhead. On a location change,

he shall pay current relocation costs plus 15% overhead.

5.4 METER INSTALLATION FOR TWO OR MORE UNITS ON SAME PROPERTY

Two or more houses under one ownership and on the same parcel of land, may be supplied through the same connection, or a separate connection may be provided for each house. A service connection shall not be used to supply a joint property of a different owner or to supply property of the same owner across a street, alley, or easement. The General Manager reserves the right to limit the number of houses or the area of land under one ownership to be supplied by one service connection.

5.4-1 METER SERVICE TO APARTMENTS OR CONDOMINIUMS.

Water service to apartments or condominiums under one ownership may be supplied by a single meter, a bank of meters or a separate meter for each unit, as approved by the General Manager.

A. Upon conversion from apartments to condominiums the District shall require a single meter for each unit, and a separate meter for pools, landscaping, utility buildings, recreation facilities or other specific requirements.

5.5 INSTALLATION NOT OTHERWISE COVERED BY THIS ORDINANCE

In all cases where an installation is requested of the District for any purpose not covered by other provisions of the Ordinance and such request is granted, the installation shall be made by the District and total cost shall be paid by the applicant.

In any case where in this Ordinance it is stated that the District shall make an installation on total cost basis, the District, where expedient, may make said installation on a fixed charge basis to be determined by the General Manager.

SECTION 6 - SERVICE CONNECTIONS AND FACILITIES ON PREMISES OF CONSUMER

6.1 SERVICE CONNECTIONS

Service connections extending from the water main to and including the meter with couplings, meter box and curb stop or valves, shall be owned and maintained by the District. All pipes and fixtures extending or lying beyond the meter shall be installed and maintained by the owner of the property.

Consumer shall be liable for any damage to the service facilities when such damage is from causes originated on the premises by an act of the consumer, his tenants, agents, employees, contractors, licensees, or permittees, including the breaking or destruction of locks by the consumer or others, on or near a meter. The District shall be reimbursed by the consumer for any such damage promptly on presentation of a bill therefor.

District shall not be responsible for any damage occurring on premises served, by

reason of open faucets, faulty fixtures or broken pipes on such premises at or after the time when service is turned on, whether or not at that time, there be any responsible interested person on the premises, nor for any damage resulting from the turning off of water service.

6.2 SHUT-OFF VALVES

A shut-off valve is required to be installed on the parcel of property to be served and located between the meter installation and the first water outlet on the consumer's premises, but not in the public right-of-way or easement right-of-way.

6.3 BACKFLOW PROTECTION - CROSS-CONNECTION CONTROL

SECTION I - PURPOSE

The purpose of this ordinance is to protect the public water supply system from contamination due to potential and actual cross connections. This shall be accomplished by the establishment of a cross-connection control program as required by State regulations. This ordinance is adopted pursuant to Title 17, Section 7583 - 7605 inclusive, of the California Code of Regulations (CCR).

SECTION II - RESPONSIBILITY

The General Manager shall be responsible for implementing and enforcing the cross-connection control program. An appropriate backflow prevention assembly shall be installed by and at the expense of the water user at each user connection where required to prevent backflow from the water user's premises to the domestic water system. It shall be the water user's responsibility to comply with Orchard Dale Water District's requirements and the water user shall be responsible for any costs incurred by Orchard Dale Water District in connection with the administration or enforcement of the cross-connection control program, and for any other fees determined by the District's General Manager to be owing in connection therewith. The District may prorate any such fees on a customer's monthly or bi-monthly, as applicable, water bill. (Amended March 10, 2010 by Resolution No. 10-3-6)

SECTION III - CROSS-CONNECTION PROTECTION REQUIREMENTS

The type of protection that shall be provided to prevent backflow into the public water supply system shall be commensurate with the degree of hazard, actual or potential, that exists on the water user's premises. Unprotected cross-connections with the public water supply are prohibited. The type of backflow prevention assembly that may be required (listed in decreasing level of protection) includes: Air-gap separation, Reduced Pressure Principle Backflow Prevention Assembly and a Double Check Valve Assembly. The water user may choose a higher level of protection than required by the water supplier.

The minimum types of backflow protection required to protect the approved water supply at the user's water connection to premises with varying degree of hazard are listed in Table 1, Section 7604, Title 17, CCR. Situations which are not covered in Table 1 shall be evaluated on a case-by-case basis and the appropriated back-flow protection shall be determined by the water supplier or health agency.

SECTION IV - BACKFLOW PREVENTION ASSEMBLIES

Only backflow prevention assemblies which have been approved by the Orchard Dale Water District shall be acceptable for installation by a water user. A list of approved backflow prevention assemblies will be provided upon request to any affected customer. Backflow prevention assemblies shall be installed in a manner prescribed in Section 7603, Title 17, CCR. Location of the assemblies shall be as close as practical to the user's connection. The Orchard Dale Water District shall have the final authority in determining the required location of a backflow prevention assembly. Testing of backflow assemblies shall be conducted only by qualified testers and testing will be the responsibility of the water user. Backflow prevention assemblies must be tested at least annually and immediately after installation, relocation, or repair. More frequent testing may be required if deemed necessary by the Orchard Dale Water District. No assembly shall be placed back in service unless it is functioning as required. These assemblies shall be serviced, overhauled, or replaced whenever they are found to be defective and all costs of testing, repair, and maintenance shall be borne by the water user. Approval must be obtained from the Orchard Dale Water District prior to removing, relocating or replacing a backflow prevention assembly.

SECTION-V - ADMINISTRATION

The cross-connection control program shall be administered by the General Manager. The Orchard Dale Water District will establish and maintain a list of approved backflow prevention assemblies as well as a list of approved backflow prevention assembly testers. The Orchard Dale Water District shall conduct necessary surveys of water user premises to evaluate the degree of potential health hazards. The Orchard Dale Water District shall notify users when an assembly needs to be tested. The notice shall contain the date when the test must be completed.

SECTION VI - WATER SERVICE TERMINATION

When the Orchard Dale Water District encounters water uses that represent a clear and immediate hazard to the potable water supply that cannot be immediately abated, the procedure for terminating water service shall be instituted. Conditions or water uses that create a basis for water service termination shall include, but are not limited to,

the following:

1. Refusal to install or to test, a backflow prevention assembly, or to repair or replace a faulty backflow prevention assembly.
2. Direct or indirect connection between the public water system and a sewer line.
3. Unprotected direct or indirect connection between the public water system and a system or equipment containing contaminants.
4. Unprotected direct or indirect connection between the public water system and an auxiliary water system.

For condition 1, the Orchard Dale Water District will terminate service to a water user's premises after proper notification has been sent. If no action is taken within the allowed time period water service shall be terminated.

For conditions 2, 3, or 4, the Orchard Dale Water District shall take the following steps:

1. Make reasonable effort to advise the water user of intent to terminate water service;
2. Terminate water service and lock service valve. The water service shall remain inactive until correction of violations has been approved by the Orchard Dale Water District.

SECTION VII - EFFECTIVE DATE

This Ordinance shall supersede all previous cross-connection control ordinances and shall take effect December 2, 1988.

6.4 RIGHT OF ACCESS TO PREMISES OF CONSUMER

The District shall, at all times, have the right of ingress to and egress from the consumer's premises at all reasonable hours for any purpose properly related to the furnishing of water and exercise of any and all rights secured to it by law or by this Ordinance.

6.5 WASTE OF WATER

Consumers who use water in a careless or negligent manner, or who waste water, or who allow water to escape into the streets within the boundaries of the District or adjoining property either willfully, carelessly, or on account of defective or inadequate privately-owned water lines, mains or other facilities, or on account of inadequate preparation of the land or improvements thereon for the use of water, may be refused further service until the conditions are remedied.

6.6 EMERGENCY

The District shall have the right to turn off the water from the mains or pipes of the system, in case of emergency, without notice.

SECTION 7 -METER TEST AND ADJUSTMENT OF BILLS

7.1 REQUEST FOR METER TEST

Any consumer may demand that the meter through which water is being furnished to him be examined and tested by the District for the purpose of ascertaining whether or not it is registering correctly the amount of water which is being delivered through it. Such demand shall be in writing and shall be accompanied by a deposit of five dollars (\$5.00).

7.2 TEST TO BE MADE

Upon receipt of such demand and deposit, it shall be the duty of the General Manager to cause the meter to be examined and tested, either by District personnel or by the manufacturer. A result of the test will be mailed to the consumer.

7.3 METER FOUND ACCURATE

If the meter is found to register not more than two percent (2%) more water than actually passes through it, said deposit of five dollars (\$5.00) shall be retained by the District as compensation for making the test.

7.4 ADJUSTMENT OF BILLS

A. When Meter Error of More than 2% Exists

If the meter is found to register over two percent (2%) more than actually passes through it under conditions of normal operation, the meter shall be properly adjusted or another meter will be substituted therefor and the deposit of five dollars (\$5.00) shall be refunded. The water bill for the current billing period shall be adjusted accordingly.

B. When Meter Fails to Register

If a meter fails to register or is known to have registered inaccurately during any period, the consumer shall be charged with an average consumption as shown by the meter when in use and registering correctly during a corresponding period.

7.5 VACANT PROPERTY

When a property becomes vacant, the District's regular charges shall be collected from the person who has applied for water service to said property, whether water is used or not, unless the District is notified in writing of the fact that the property is unoccupied and is requested to turn off the water.

SECTION 8 - UNAUTHORIZED USE OF WATER

No consumer shall supply water to any person, firm, or corporation other than occupant or occupants of the premises of such consumer; provided, however, that the General Manager may, at his discretion, grant a permit to a consumer to furnish water to one other than the occupant of the premises for temporary purposes. Said permit must be in writing.

All water used on said premises where a meter is installed must pass through the meter. Consumer shall be held responsible and charged for all water passing through his meter. Any unauthorized use of water shall subject the user thereof to a charge in an amount to be determined by the General Manager, regardless of the quantity used, together with additional sums as may be required to correct, modify, repair or restore facilities from which such unauthorized use was made, and in addition thereto, the District may refuse to provide further water service.

SECTION 9 - PRESSURE CONDITIONS

The District assumes no responsibility for loss or damage due to lack or excess of water or pressure, and merely agrees to furnish such quantities and pressures as are available in its general distribution system. The service is subject to shutdowns and variations required by the operation of the system.

The Board of the District does not accept any responsibility for the maintenance of pressure and it reserves the right to discontinue service while making emergency repairs and shutdowns required in the operation of the water system, without notice.

SECTION 10 - NON-COMPLIANCE WITH ORDINANCE

Upon the failure of a consumer to comply with all or any of the rules and regulations established by this Ordinance, a penalty for which has not heretofore been specifically fixed, the consumer's service shall be discontinued and water shall not be supplied such consumer until he shall have complied with the rule or regulation which he has violated and until he shall have satisfied the General Manager that in the future he will comply with all rules and regulations by this Ordinance established.

SECTION 11 - COMPLAINT PROCEDURE

All rulings of the General Manager shall be final unless appealed in writing to the Board of Directors within five (5) days. When appealed, the Board of Directors' ruling shall be final and conclusive.

All complaints to the Board of Directors must be made in writing and filed with the

Secretary, to be read at the first meeting of the Board of Directors thereafter. The General Manager shall have the power and discretion to adjust complaints and grant rebates to complainants from the charges specified. If the matter is not satisfactorily adjusted with the consumer by the General Manager, the consumer may present the matter to the Board of Directors no later than the next meeting of the Board of Directors following action of the General Manager, and the determination of the Board of Directors shall be final and conclusive.

SECTION 12 - FIRE HYDRANTS

12.1 USE

Fire hydrants are provided only through contractual agreement and are primarily for the purpose of extinguishing fires and shall be used only by Fire Department and authorized personnel of the District or such persons as may be granted a temporary permit by the General Manager to take water therefrom.

12.2 UNAUTHORIZED USE

Fire hydrants connected to the mains of the District are provided for the sole purpose of furnishing water to fight fires, except in special instances, and shall be opened and used only by persons authorized by the District. The Los Angeles County Fire Department is so authorized. Any authorization for use of water from a fire hydrant by any person other than an authorized employee of the County Fire Department shall be in writing. Any unauthorized use of water from a fire hydrant shall subject the user to a charge in an amount to be established by the General Manager, regardless of the amount of water used, payable immediately upon rendition of a statement therefor.

SECTION 13 - TAMPERING WITH DISTRICT FACILITIES

No water service connection shall be turned on by anyone other than an authorized employee of the District.

No service connection or any facility owned by the District may be removed or altered in any way by any unauthorized person, and no person shall be authorized to remove, alter, or change any property or facility belonging to the District, unless that person be an employee of the District or be specifically authorized in writing by a supervisory employee of the District.

All shut-off valves shall be installed by the District for the uses of the District. Such shut-off valves shall not be used or manipulated by consumers of water except in cases of emergency. No person, firm, or corporation shall install or maintain any

Appendix L

Notice of Public Hearing

physical connection between a private source of water supply and the water supply mains of the District.

SECTION 14 - DAMAGE CAUSED BY CONSUMER

Every consumer of water shall be responsible to the District for all damages caused by him or his agents to pipes, pipelines, and other property of the District, and all such damage shall be repaired by the District at the consumer's expense. Costs for repairs may be added to the water bill.

SECTION 15 - DISTRICT EXPENSE PRIOR TO APPLICATION

In the case of an application for new water service or new service installations where by reason of the acts of applicant the District has been required to incur expense in connection with said service prior to said application, the General Manager of the District may make such additional and special charges as are necessary to compensate the District for said expense, which charge shall be in addition to the service charges and deposits set forth in Sections 4 and 5 above.

SECTION 16 - AMENDMENT OF ORDINANCE

Any and all Ordinances, Resolutions, Rules and Regulations of the Board of Directors heretofore ordained, enacted, passed, made or established in conflict with this Ordinance are hereby repealed.

This Ordinance or any section or subsection thereof may, after the effective date of Ordinance No. 07-4 amending Ordinance No. 02-11, be amended by a majority of the members of the Board of Directors of the District, acting by ordinance or resolution. Subject to the provisions of Section 2 hereof, said amendment shall become effective upon the date as set forth in the minutes of the Board Meeting at which said amendment was finally passed.

If any section, subsection, sentence, phrase or clause of these Rules and Regulations are, for any reason, held to be invalid or unconstitutional, such decisions shall not affect the validity of the remaining portions of this Ordinance."

publication and terminates either at the end of the day of the third publication or at the end of the tenth day, including therein the first day, whichever period is longer.

6064. Publication of notice pursuant to this section shall be once a week for four successive weeks. Four publications in a newspaper regularly published once a week or oftener, with at least five days intervening between the respective publication dates not counting such publication dates, are sufficient. The period of notice commences with the first day of publication and terminates at the end of the twenty-eighth day, including therein the first day.

6065. Publication of notice pursuant to this section shall be once a week for eight successive weeks. Eight publications in a newspaper regularly published once a week or oftener, with at least five days intervening between the respective publication dates not counting such publication dates, are sufficient. The period of notice commences upon the first day of publication and terminates at the end of the fifty-sixth day, including therein the first day.

6066. Publication of notice pursuant to this section shall be once a week for two successive weeks. Two publications in a newspaper published once a week or oftener, with at least five days intervening between the respective publication dates not counting such publication dates, are sufficient. The period of notice commences upon the first day of publication and terminates at the end of the fourteenth day, including therein the first day.

GOVERNMENT CODE

SECTION 6060-6066

6060. Whenever any law provides that publication of notice shall be made pursuant to a designated section of this article, such notice shall be published in a newspaper of general circulation for the period prescribed, the number of times, and in the manner provided in that section. As used in this article, "notice" includes official advertising, resolutions, orders, or other matter of any nature whatsoever that are required by law to be published in a newspaper of general circulation.

6061. Publication of notice pursuant to this section shall be for one time.

6061.3. Publication of notice pursuant to this section shall be for three successive times.

6062. Publication of notice pursuant to this section shall be for 10 days. The period of notice commences upon the first day of publication and terminates at the end of the tenth day, including therein the first day. Publication shall be made on each day on which the newspaper is published during the period.

6062a. Publication of notice pursuant to this section shall be for 10 days in a newspaper regularly published once a week or oftener. Two publications, with at least five days intervening between the dates of first and last publication not counting such publication dates, are sufficient. The period of notice commences upon the first day of publication and terminates at the end of the tenth day, including therein the first day.

6063. Publication of notice pursuant to this section shall be once a week for three successive weeks. Three publications in a newspaper regularly published once a week or oftener, with at least five days intervening between the respective publication dates not counting such publication dates, are sufficient. The period of notice commences upon the first day of publication and terminates at the end of the twenty-first day, including therein the first day.

6063a. Publication of notice pursuant to this section shall be for at least 10 days. Three publications in a newspaper published once a week or oftener, with at least five days intervening between the first and last publication dates not counting such publication dates, are sufficient. The period of notice commences upon the first day of

NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that the Board of Directors of Orchard Dale Water District will hold a public hearing on the draft of the Orchard Dale Water District 2010 Urban Water Management Plan (the "Plan").

NOTICE IS HEREBY FURTHER GIVEN that said public hearing will be held on the 28th day of June 2011, at the hour of 6:00PM at the Orchard Dale Water Districts office, 13819 East Telegraph Road, Whittier, California, at which time and place any and all persons interested may appear and be heard thereon. After conclusion of the hearing, the District's Board of Directors will consider adopting the Plan. If you would like to review the Plan, a copy is available at the Orchard Dale Water Districts office. For information call Tom Coleman at (562) 941-0114.

Tom Coleman, General Manager
Orchard Dale Water District

Publish: June 16, 24, 2011
Whittier Daily News **Ad #43013**

WHITTIER DAILY NEWS

**Affiliated with
SGV Newspaper Group
7612 Greenleaf Avenue
Whittier, CA 90602**

(Space below for use of County Clerk only)

**FIRST RUN
(2015.5 C.C.P.)**

STATE OF CALIFORNIA

County of Los Angeles

I am a citizen of the United States, and a resident of the county aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of **WHITTIER DAILY NEWS**, a newspaper of general circulation which has been adjudicated as a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, on the date of October 10, 1960, Case Number 369393. The notice, of which the annexed is a true printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

06/16

I declare under penalty of perjury that the foregoing is true and correct.

Executed at West Covina, LA Co. California
This 16th day of JUNE, 2011.



Signature

12/22/99 (R)

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Tom Coleman, General Manager
Orchard Dale Water District

Publish: June 16, 23, 2011
Whittier Daily News Ad #43013

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Tom Coleman, General Manager
Orchard Dale Water District

Publish: June 16, 23, 2011
Whittier Daily News **Ad #43013**

Appendix M

Resolution of Adoption



Orchard Dale WATER DISTRICT

13819 E. Telegraph Road, Whittier, CA 90604 • Office: (562) 941-0114 • Fax: (562) 944-6384 • Web: www.odwd.org

Board of Directors

President

Joseph K. Kennedy

Vice President

Joseph Velasco III

Director

Robert J. Noonan

Director

Harold C. Estabrook

Director

Yvette Stevenson-Rodriguez

General Manager

Thomas L. Coleman

RESOLUTION NO. 11-6-6 RESOLUTION OF THE BOARD OF DIRECTORS OF ORCHARD DALE WATER DISTRICT ADOPTING 2010 URBAN WATER MANAGEMENT PLAN

WHEREAS, the Urban Water Management Planning Act (the "Act;" Water Code Sections 10610 et seq.) requires that every water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually shall prepare an Urban Water Management Plan (the "Plan"); and

WHEREAS, Orchard Dale Water District (the "District") is an urban supplier of water providing water to approximately 4,247 services; and

WHEREAS, the District has caused to be prepared and made available for public review a draft of its 2010 Plan, dated June 2011, and held a public hearing regarding said Plan,

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of Orchard Dale Water District hereby resolves and declares as follows:


1. That certain Plan entitled "2010 Urban Water Management Plan," a copy of which is on file in the offices of the District, is hereby adopted in the form now on file, and that Plan is fully incorporated herein by this reference.
2. The District's General Manager is hereby authorized and directed to file the Plan, as adopted, with the California Department of Water Resources within thirty (30) days from adoption of this resolution.

PASSED AND ADOPTED at a regular meeting of the Board of Directors of Orchard Dale Water District held on June 28, 2011.

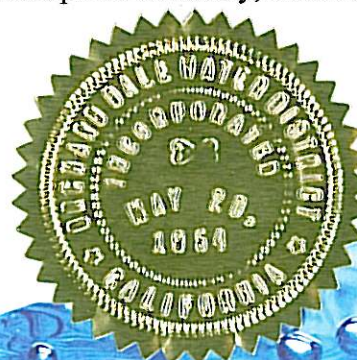
ATTEST:



Thomas L. Coleman, Secretary


Joseph K. Kennedy, President

SEAL:



Appendix N

CBMWD

2010 Urban Water Management Plan Draft

Central Basin

Municipal Water District



DRAFT

2010 Urban Water Management Plan

March 2011

MESSAGE FROM THE BOARD OF DIRECTORS

Since the District's formation in 1952, Central Basin Municipal Water District has remained steadfast in its commitment to ensure a safe and reliable water supply for the region. Through the years, the District has grown and transformed, seeking innovative and viable solutions to meet the changing needs of its communities. All of us at Central Basin continue to expand our efforts to meet the growing water demand while preserving our limited and precious water resource. Through our water recycling, conservation, education and groundwater quality protection programs, Central Basin has evolved from a potable water wholesaler to a leader safeguarding the region's water supply.

We are proud to submit this 2010 Urban Water Management Plan to the California Department of Water Resources. The Plan reports all current and projected water supplies and demands within Central Basin's service area, demonstrates water reliability for the next 25 years, and provides a comprehensive overview of Central Basin's various programs as well as our assistance to cities and agencies to meet their 20 percent by 2020 targets.

DIRECTORS

Division I – Edward C. Vasquez

Bell Gardens, Downey, Montebello, Norwalk and Vernon

Division IV – Rudy C. Montalvo

Lynwood, South Gate, portions of Cudahy, Carson, Florence-Graham and Willowbrook

Division II – Robert Apodaca

La Habra Heights, La Mirada, Pico Rivera, Santa Fe Springs and Whittier

Division V – Phillip D. Hawkins

Artesia, Bellflower, Cerritos, Hawaiian Gardens, Lakewood, Paramount and Signal Hill

Division III – Art Chacon

Bell, Commerce, Huntington Park, Maywood, portions of Cudahy, Monterey Park and unincorporated areas of East Los Angeles

MISSION STATEMENT

"To exercise the powers given to the District under its establishing act, utilizing them to the benefit of parties within the District and beyond. To acquire, sell and conserve imported and other water that meets all required standards and to furnish it to our customers in a planned, timely and cost effective manner that anticipates future needs. The District serves as the official representative for its public at the Metropolitan Water District of Southern California. It also provides leadership, support, advice and communication on water issues to the people and agencies within and outside its boundaries, as appropriate."

Tables of Contents

SECTION TITLE

LIST OF FIGURES

LIST OF TABLES

ES.0	EXECUTIVE SUMMARY	
	A Brief History.....	
	A Different Approach to Water Management	
	Water Demand	
	Impacts of Conservation and Education: Reduced Demand	
	Water Supply	
	Planning for Increased Diversification	
	Water Supply Reliability	
	Water Conservation.....	
	Recycled Water	
	Water Quality	
	Water Rates and Charges.....	
1.0	INTRODUCTION.....	1-1
1.1	Purpose and UWMP Summary	1-1
1.2	Urban Water Management Plan Update Preparation	1-1
	1.2.1 Plan Adoption.....	1-1
	1.2.2 Agency Coordination.....	1-2
1.3	Central Basin Municipal Water District.....	1-2
	1.3.1 Background.....	1-2
	1.3.2 Central Basin's Service Area	1-2
	1.3.3 Relationship to Metropolitan Water District	1-3
	<i>Representation on the MWD board of Directors</i>	<i>1-3</i>
	<i>Supply Chain</i>	<i>1-3</i>
2.0	WATER DEMAND.....	2-1
2.1	Overview	2-1
2.2	Climate Characteristics	2-1
2.3	Demographics	2-2
2.4	Historical and Current Water Demands.....	2-2
	2.4.1 Per Capita Water Usage.....	2-3
	<i>Statewide Target</i>	<i>2-3</i>
	<i>Regional Target.....</i>	<i>2-5</i>
	<i>Central Basin Service Area</i>	<i>2-5</i>
	2.4.2 Replenishment Demands	2-5
	<i>Spreading Demands.....</i>	<i>2-6</i>
	2.4.3 Retail Imported Water Demand by Customer Agency	2-7
2.5	Projected Water Demands	2-8
	2.5.1 Projected Per Capita.....	2-8

3.0	WATER SUPPLY	3-1
3.1	Overview	3-1
3.2	Central Basin's Water Supply Portfolio	3-1
3.3	Central Basin's Water Source	3-3
3.3.1	Imported Water Supply	3-3
	<i>Colorado River</i>	3-3
	<i>State Water Project</i>	3-4
	<i>Types of Imported Supplies</i>	3-5
3.3.2	Groundwater Supply	3-5
	<i>Water Replenishment District</i>	3-5
	<i>Groundwater Rights</i>	3-6
	<i>Main Basin</i>	3-6
	<i>Groundwater Recharge</i>	3-8
3.3.3	Recycled Water Supply	3-10
3.4	Alternative Water Supply Projects	3-11
3.4.1	Conjunctive Use Groundwater Storage	3-11
3.4.2	Water Transfers & Exchanges	3-11
3.4.3	Desalination	3-12
4.0	WATER RELIABILITY	4-1
4.1	Overview	4-1
4.2	State Water Supply Reliability	4-1
4.3	MWD Water Supply Reliability	4-1
4.3.1	MWD Integrated Resource Plan	4-2
	<i>2010 IRP Update</i>	4-3
4.3.2	MWD Water Surplus and Drought Management Plan	4-4
4.3.3	MWD Water Supply Allocation Plan	4-4
4.3.4	MWD Local Resource Projects	4-4
	<i>MWD Facility Improvements</i>	4-4
	<i>Inland Feeder Project</i>	4-5
4.4	Central Basin's Water Supply Reliability	4-6
4.4.1	Normal-Year Reliability Comparison	4-7
4.4.2	Single Dry-Year Reliability Comparison	4-7
4.4.3	Multiple Dry-Year Reliability Comparison	4-9
4.5	Water Shortage Contingency Plan	4-10
4.5.1	Minimum Supply	4-10
4.5.2	Catastrophic Supply Interruption	4-10
4.6	Inconsistency of Supplies	4-11
5.0	WATER QUALITY	5-1
5.1	Overview	5-1
5.2	Quality of Existing Water Supplies	5-1
5.2.1	Imported Water	5-1
	<i>Delta Improvement Package</i>	5-2
	<i>Source Water Protection</i>	5-2
	<i>Disinfection Byproducts</i>	5-2
	<i>Pharmaceuticals and Personal Care Products</i>	5-2
5.2.2	Groundwater	5-2
	<i>Perchlorate</i>	5-3
	<i>Manganese</i>	5-3
	<i>Volatile Organic Compounds</i>	5-3
	<i>Water Replenishment District Programs</i>	5-4
5.2.3	Recycled Water	5-4
5.3	Effects on Water Management Strategies	5-4

	<i>Replenishment</i>	5-4
5.4	Effects on Supply Reliability	5-5
5.5	Water Quality Protection Project	5-5
6.0	WATER CONSERVATION	6-1
6.1	Overview	6-1
6.2	Central Basin's Past and Current Water Conservation Efforts	6-2
6.2.1	Metropolitan Water District's Conservation Goal	6-2
6.3	California Urban Water Conservation Council	6-2
6.3.1	Best Management Practices (BMPs)	6-2
6.4	Central Basin BMP Compliance	6-2
6.4.1	BMP #1 Water Survey Programs for Single-Family Residential and Multi-Family Customers	6-2
6.4.2	BMP #2- Residential Plumbing Retrofit	6-2
6.4.3	BMP #3- System Water Audits, Leak Detection and Repair	6-3
6.4.4	BMP #4- Metering with Commodity Rates for all New Connections and Retrofit of Existing Connections	6-3
6.4.5	BMP #5- Large Landscape Conservation Programs and Incentives	6-3
6.4.6	BMP #6- High-Efficiency Washing Machine Rebate Programs	6-3
6.4.7	BMP #7- Public Information Programs	6-3
6.4.8	BMP #8- School Education Programs	6-3
6.4.9	BMP #9- Conservation Programs for Commercial, Industrial and Institutional (CII) Accounts	6-4
6.4.10	BMP #10- Wholesale Agency Programs	6-4
6.4.11	BMP #11- Conservation Pricing	6-4
6.4.12	BMP #12- Water Conservation Coordinator	6-4
6.4.13	BMP #13- Water Waste Prohibition	6-4
6.4.14	BMP #14- Residential Ultra-Low-Flush Toilet Replacement Programs	6-4
	<i>HET Distribution Events</i>	6-4
	<i>HET Direct installation Programs</i>	6-5
	<i>Local HET Partnership Programs</i>	6-5
6.4.15	Additional Conservation Programs	6-5
	<i>Conservation Partnerships</i>	6-5
	<i>Water Wasting Prohibition City Ordinances</i>	6-5
6.4.16	Grant Programs	6-5
	<i>MWD Grant (Innovative Conservation Program Grant)</i>	
	<i>211 HET Direct Install</i>	6-5
	<i>MWD Grant (Innovative Conservation Programs Grant)-Bell Gardens; California Friendly City-A Model for Inner City Transformation</i>	6.5
	<i>MWD (Enhanced Conservation Program Grant)-Landscape High Efficiency Living Program (HELP)</i>	6-5
	<i>DWR Grant (Prop 50) High Efficiency Living Program (HELP) 10,000 HET Direct Install</i>	6.5
	<i>DWR Grant (Prop 50)-Conservation Outreach Targeting Multicultural Communities</i>	6.5
	<i>DWR Grant (Prop 50) – Urban City Makeover Program</i>	6.5
	<i>DWR Grant (Prop 50) – Helping Our People and Environment (HOPE) 3,000 HET Direct Install</i>	6-6
	<i>DWR Grant (Prop 50) – Zero Water Consumption Urinal Retrofit Program 2,600 Urinal Retrofit Program</i>	6-6
	<i>DWR Grant (Prop 50) – Commercial Wireless Valve End Use Management Research Project</i>	6-6
	<i>DWR Grant (Prop 50) – Large Landscape Water Conservation, Runoff Reduction and Educational Program</i>	6-6
	<i>U.S. D.O.E. (Energy Efficiency Conservation Block) Water and Energy Emergency End Use Demand Management Measures Grant</i>	6-6

6.5	Current and Future Education Programs	6-6
6.5.1	Current Programs	6-6
	<i>Water Squad Investigations (Grades 4-12)</i>	6-6
	<i>Water Wanderings (Grades 4-5)</i>	6-6
	<i>Think Watershed (Grades 4-6)</i>	6-7
	<i>Think Earth! It's Magic (After School Program for Grades K-5)</i>	6-7
	<i>Think Water! It's Magic (After School Program for Grades K-5)</i>	6-7
	<i>"Water Is Life" Poster Contest (Grades 4-8)</i>	6-7
	<i>Waterlogged (Grades 9-12)</i>	6-7
	<i>Sewer Science (Grades 9-12)</i>	6-8
6.5.2	Future Programs	6-8
	<i>Conservation Connection: Water & Energy in Southern Calif.</i> <i>(Grades 5-8)</i>	6-8
	<i>Water for the City: Southern California's Urban Water Cycle</i> <i>(Grades 4-8)</i>	6-8
6.6	Central Basin's Water Use Efficiency Master Plan	6-9
7.0	WATER RATES & CHARGES	7-1
7.1	Overview	7-1
7.2	MWD Rate Structure	7-1
7.2.1	Purchase Orders	7-1
7.2.2	Unbundled Rates and Tier 1 & 2	7-2
7.2.3	Replenishment Service	7-2
7.2.4	MWD Capacity Charge	7-2
7.2.5	Readiness-to-Serve Charge	7-3
7.2.6	MWD Standby Charge	7-3
7.3	Central Basin's Imported Water Rates	7-3
7.3.1	Purchase Agreements	7-3
7.3.2	Administrative Surcharge	7-4
7.3.3	Readiness-to-Service Surcharge	7-4
7.3.4	Water Service Charge	7-4
7.3.5	Central Basin's Capacity Charge	7-4
7.4	Recycled Water Rates	7-4
7.4.1	Recycled Water Rates	7-4
7.4.2	Recycled Water Standby Charge	7-4
7.5	Future Water Rate Projections	7-5
7.5.1	Imported Water Rate Projections	7-5
7.5.2	Recycled Water Rate Projections	7-6
8.0	WATER RECYCLING	8-1
8.1	Overview	8-1
8.2	Recycled Water Sources and Treatment	8-1
8.2.1	Central Basin's Source Water	8-1
	<i>San Jose Creek Water Recycling Plant</i>	8-1
	<i>Los Coyotes Water Recycling Plant</i>	8-2
8.2.2	Recycled Water Quality	8-2
8.2.3	Treatment Process	8-3
8.3	Central Basin's Recycled Water System	8-3
8.3.1	Existing System	8-3
8.3.2	Recycled Water Use by Type	8-4
8.3.3	Historical and Current Sales	8-4
8.3.4	System Expansions and Projected Sales	8-5
	<i>Southeast Water Reliability Project</i>	8-5
	<i>Pico Rivera Recycled Water Project</i>	8-6
	<i>System Storage</i>	8-7
	<i>Potential New Connections</i>	8-7

	<i>Projected Recycled Water Sales</i>	8-7
8.3.5	Potential Recycled Water Use	8-8
8.3.6	Encouraging Recycled Water Use	8-8
	<i>Optimizing Recycled Water Use</i>	8-8
8.3.7	Funding	8-9
8.4	Recycled Water Projects within CBMWD Service Area	8-9
8.4.1	City of Cerritos Water Recycling Program	8-9
8.4.2	City of Lakewood Water Recycling Program	8-9
8.4.3	Water Replenishment District Recycled Water Operations	8-9
8.5	Total Recycled Water Use in Central Basin	8-9

List of Figures

NO.	TITLE	PAGE
1-1	Imported Water Supply Chain	1-5
2-1	Central Basin Historical total Retail Water Demand vs. Population	2-5
2-2	Historical Per Capita Retail Water Usage	2-6
2-3	Imported Water Replenishment Sales in Central Basin's Service Area.....	2-7
3-1	Historical, Current & Projected Water Supplies	3-1
4-1	MWD's Water Supply & Demand Management Plan	4-5
7-1	Central Basin Imported Water Rates 10 Year Projections.....	7-5
7-2	Central Basin Average Recycled Water Rates/AF 10 Year Projection	7-6
8-1	Historical Recycled Water Sales FY 2001 – 2010	8-5
8-2	CBMWD Recycled Water Distribution System with SWRP.....	8-7

List of Tables

NO.	TITLE	PAGE
1-1	Central Basin Public and Agency Coordination.....	1-4
2-1	Climate Characteristics-Los Angeles Region, Zone 4 - South Coast Inland Plain.....	2-2
2-2	Demographic Projections for Central Basin's Service Area	2-3
2-3	Historical & Projected Imported Water Sales to Central Basin Service Area Retail Agencies	2-4
2-4	Central Basin Service Area Current & Future Water Demands	2-8
2-5	Water Supply Efficiency in the Central Basin Service Area	2-8
3-1	Current & Projected Water Supplies in Central Basin (In Acre-Feet).....	3-2
3-2	Adjudicated Pumping Rights in Central Groundwater Basin (In Acre-Feet).....	3-6
3-3	Historical Amount of Groundwater Pumped from Central Groundwater Basin and Main San Gabriel Basin (In Acre Feet).....	3-7
3-4	Projected Amount of Groundwater Pumped from the Central Groundwater Basin and Main San Gabriel Basin (In Acre-Feet)	3-7
3-5	Demand Projections for Imported & Recycled Water in the Central Basin Service Area	3-8
3-6	Historical Imported Water Replenishment Deliveries (In Acre-Feet).....	3-9
4-1	Central Basin Municipal Water District Retail Supply Reliability (In Acre Fee)	4-7
4-2	Projected Normal Water Year Supply and Demand (In Acre-Feet)	4-8
4-3	Projected Single Dry-Year Supply and Demand (In Acre-Feet).....	4-8
4-4	Projected Water Supply and Demand during Multiple Dry-Year 2013-2015 (In Acre-Feet) .	4-9
4-5	Projected Water Supply and Demand during Multiple Dry-Year 2018-2020 (In Acre-Feet) .	4-9
4-6	Projected Water Supply and Demand during Multiple Dry-Year 2023-2025 (In Acre-Feet) .	4-9
4-7	Projected Water Supply and Demand during Multiple Dry-Year 2028-2030 (In Acre-Feet) .	4-9
4-8	Projected Water Supply and Demand during Multiple Dry-Year 2033-2035 (In Acre-Feet) .	4-9
4-9	Three Year Estimated Minimum Water Supply (In Acre-Feet)	4-10
4-10	Factors Resulting in Inconsistency of Supply (In Acre-Feet)	4-11
6-1	School Education Program (Number of Participating Students)	6-8
7-1	Central Basin Purchase Order Terms	7-1
7-2	Metropolitan Water District Unbundled Water Rate Components Adopted for 2011	7-2
7-3	Metropolitan Water District Replenishment Service Rate Adopted for 2011	7-2
7-4	Metropolitan Water District Capacity Charge for 2011	7-3
8-1	Projected Future Use of Recycled Water in Service Area (In Acre-Feet)	8-2
8-2	Projected Wastewater Collected and Treated (In Acre-Feet)	8-3
8-3	Projected Disposal of Wastewater (Non-Recycled) Acre-Feet Year	8-3
8-4	Types of Recycled Water Customers	8-4
8-5	Central Basin Recycled Water User For FY 2009-10 by Type of Site	8-4
8-6	Historical Recycled Water Sales by Retail Customer Agency of Central Basin FY 2001-2010	8-6
8-7	Total Projected Recycled Water Use in Central Basin's Service Area (In Acre-Feet)	8-10

1

Introduction

This section is an introduction to Central Basin and its relationship to MWD

1.1 PURPOSE AND UWMP SUMMARY

An Urban Water Management Plan (UWMP or Plan) prepared by a water purveyor is to ensure the appropriate level of reliability of water service sufficient to meet the needs of its various categories of customers during normal, single dry or multiple dry years. The California Urban Water Management Planning Act of 1983 (Act), as amended, requires urban water suppliers to develop an UWMP every five years in the years ending in zero and five.

The legislature declared that waters of the state are a limited and renewable resource subject to ever increasing demands, that the conservation and efficient use of urban water supplies are of statewide concern, that successful implementation of plans is best accomplished at the local level, that conservation and efficient use of water shall be actively pursued to protect both the people of the state and their water resources, that conservation and efficient use of urban water supplies shall be a guiding criterion in public decisions and that urban water suppliers shall be required to develop water management plans to achieve conservation and efficient use.

Central Basin Municipal Water District's (Central Basin) 2010 UWMP has been prepared in compliance with the requirements of the Act, and includes data and/or discussion of the following topics:

- Water Wholesale Service Area
- Water Demands
- Water Sources and Supplies
- Water Reliability Planning
- Water Quality Information
- Water Demand Management Measures
- Water Shortage Contingency Plan
- Water Recycling
- 20percent x 2020 Compliance Assistance

1.2 URBAN WATER MANAGEMENT PLAN UPDATE PREPARATION

Central Basin's 2010 UWMP revises the 2005 UWMP prepared by Central Basin and incorporates changes enacted by legislation over the last five years, including SB 1087 (2005), AB 1376 (2007), AB 1420 (2007), SBX3 27 (2009), and AB 1465 (2010). The UWMP also incorporates water use efficiency efforts Central Basin has implemented pursuant to the Memorandum of Understanding Regarding Urban Water Conservation in California (MOU). Central Basin was one of the first agencies to become signatory to the MOU in September 1991.

The sections in this UWMP correspond to the outline of the Act, specifically Article 2, Contents of Plans, Sections 10621, 10631, 10632 and 10633 and 10644. The sequence used for the required information, however, differs slightly in order to present information in a manner reflecting the unique characteristics of Central Basin. The Department of Water Resources' Review for Completeness form has been completed, which identifies the location of Act requirements in this Plan and is included as Appendix A.

1.2.1 PLAN ADOPTION

The 2010 UWMP was adopted by a resolution of Central Basin's Board of Directors in May 2011 (estimate) following a public hearing. The Plan was submitted to the California Department of Water Resources within 30 days of Board approval. Copies of the Notice of Public Hearing and the Resolution of Plan Adoption are included in Appendix B. Copies of the Plan were made available to the public within 30 days following Board approval.

FOOTNOTES:

1 California Water Code, Division 6, Part 2.6; §10610, et. seq. Established by Assembly Bill 797 (1983).

2 The Memorandum of Understanding Regarding Urban Water Conservation in California (MOU) was adopted in September 1991 by a large number of water suppliers, public advocacy organizations and other interested groups. It created the California Urban Water Conservation Council and established 16 Best Management Practices (BMPs) for urban water conservation, recently refined to 14 BMPs. The District became signatory to the MOU in September 1991.

1.2.2 AGENCY COORDINATION

In November 2009, the Governor signed off on a legislative package of bills that altered how water is managed in the state. The landmark legislative package required all retail water agencies in the state to reduce their water demand by 20 percent by the year 2020. Retail water agencies were mandated to develop plans for meeting that conservation goal and include those plans as part of their 2010 UWMP's. To allow time to complete those plans, retail water agencies were provided six additional months beyond December 31, 2010 when those UWMP would be due. Although wholesale water agencies were not included in the statewide mandate, in September 2010 the state did allow wholesale water agencies the additional six months to complete their UWMP's under SB 1478. Subsequently, Central Basin modified and extended its schedule for completing the UWMP by June 30, 2011.

A notice of adoption of Central Basin's 2010 UWMP was prepared and sent to the Metropolitan Water District of Southern California (MWD), the County of Los Angeles and all of the District's various cities and customer agencies at least 60 days before the formal adoption date. The notice of adoption is included in Appendix C.

Central Basin's 2010 UWMP was completed by District staff in coordination with its customer water agencies and MWD. Table 1-1 provides an overview of the coordination and the participation of local and regional cities and agencies. Central Basin staff submitted this in draft form to the cities and retail agencies during the winter of 2011 for review and comment. Since most of the cities and agencies need to prepare their own UWMP's, Central Basin staff provided historical water use and conservation data that they were able to use in their own plans.

Central Basin is a wholesaler water agency and purchases its potable supplies from MWD and its recycled water from the County Sanitation Districts of Los Angeles to sell within its service area and beyond. This UWMP details the specifics as they relate to the Central Basin service area and will refer to MWD throughout the document. MWD held several UWMP information meetings for stakeholders and the public throughout its service area during 2009 and 2010.

The 2010 UWMP is intended to serve as a general, flexible and open-ended document that periodically can be updated to reflect changes in the region's water supply trends as well as conservation and water use efficiency policies. This UWMP, along with Central Basin's other planning documents, will be used by Central Basin staff to guide the service area's water use and management efforts through the year

2015, when the UWMP is required to be updated again.

1.3 CENTRAL BASIN MUNICIPAL WATER DISTRICT

1.3.1 BACKGROUND

Central Basin Municipal Water District was established by a vote of the people in 1952 to protect the Central Groundwater Basin from over pumping. Central Basin's founders realized they would have to curtail the use of pumping by providing the region with imported water. Therefore, Central Basin joined MWD in 1954 to purchase, on a wholesale level, potable water imported from the Colorado River and then sell it to the local municipalities, investor-owned and mutual water companies and water districts. As a water supplier, MWD provides the Southern California region with a reliable supply of imported water. Central Basin remains one of the largest member agencies of MWD's wholesalers with a population of about 1.6 million to 2 million.

Today, Central Basin wholesales potable water to 26 cities, mutual water companies, investor-owned utilities, water districts and private companies in the region. In addition, Central Basin supplies recycled water to the region for municipal, commercial and industrial use. Central Basin supplies imported and recycled water to its customer agencies to help protect the Central Groundwater Basin and reduce their reliance on groundwater supplies.

Central Basin is governed by a five member Board of Directors elected from within the service area. Each Director serves a four-year term once elected. The Board of Directors guides the mission and policy of Central Basin. In addition, Central Basin's Board of Directors appoints two representatives to serve on the 37-member MWD Board of Directors. Central Basin's representation on the MWD Board is critical to shaping a regional voice on water issues.

1.3.2 CENTRAL BASIN'S SERVICE AREA

Central Basin's service area covers approximately 227 square miles and includes 24 cities and several unincorporated areas in southeast Los Angeles County. Central Basin maintains an official population of approximately 1.65 million people according to the Southern California Area Governments (SCAG), but due to the undercounting of the area's immigrant population, the number is closer to 2 million. Central Basin is broken up into 5 distinct political divisions with the residents of each division voting for a representative to the Board of Directors. The cities and their associated divisions include:

Division 1:

Bell Gardens, Downey, Montebello, Norwalk and Vernon.

Division 2:

La Habra Heights, La Mirada, Pico Rivera, Santa Fe Springs and Whittier.

Division 3:

Bell, Commerce, Huntington Park, Maywood, portions of Monterey Park and areas of unincorporated East Los Angeles and Walnut Park.

Division 4:

Portions of Carson, Compton and Cudahy, Lynwood, South Gate, Florence-Graham and Willowbrook.

Division 5:

Artesia, Bellflower, Cerritos, Hawaiian Gardens, Lakewood, Paramount and Signal Hill.

**1.3.3 RELATIONSHIP TO
METROPOLITAN WATER DISTRICT**

Central Basin is one of 26 member agencies of MWD. MWD was formed in 1928 with just 13 member agencies to build and operate the Colorado River Aqueduct (CRA). The first deliveries of CRA water began in 1941. Central Basin joined MWD in 1954 as a wholesale water district to sell imported water to the local retail water agencies. The first CRA water deliveries to the Central Basin area began a few months later.

Representation on the MWD Board of Directors

The MWD maintains a Board of Directors of 38 representatives, each of which are appointed by the governing bodies of the 26 member agencies.

Over the last 56 years that Central Basin has been a member agency, MWD's administrative code concerning representation on the Board of Directors has only changed slightly. Essentially, the same rules apply today as they did in 1929 when MWD was formed. All member agencies receive one directorship at least. Member agencies receive an additional directorship for each 5 percent of that member agency's assessed valuation of the total MWD service area. Since Central Basin currently is valued at about 5.3 percent of the total MWD service area, Central Basin receives two directorships on the MWD Board. This system disproportionately impacts member agencies such as Central Basin, which represents an economically diverse service area, with 47 percent of the communities served qualifying as disadvantaged. Although this approach may have made sense in 1929, today it is an antiquated formula for determining representation because it does not adequately take into account population increases, but relies exclusively on property values. Therefore, representation on the MWD Board of Directors is an area of concern for Central Basin and will remain so until a more equitable process is in place.

Supply Chain

Central Basin plays an important role in managing the imported supplies for the region. Through various programs and projects, Central Basin strives to ensure that its residents have a safe and reliable supply of water. Figure 1-1 shows the water supply chain which illustrates the relationship between Central Basin and its customer cities and agencies.

**Table 1-1
Central Basin Public and Agency Coordination**

Coordinating Agencies	Sent a 60-Day Notice of Plan Preparation	Participated in Plan Development	Commented on Draft Plan	Attended Public Meetings	Sent a Copy of Draft Plan	Sent a Notice of Intention to Adopt
Cities						
Artesia						
Bell						
Bellflower						
Carson						
Cudahy						
Hawaiian Gardens						
La Habra Heights						
La Mirada						
Maywood						
Retail Water Agencies						
Bellflower-Somerset Mutual Water Co.						
California Water Service Co.						
City of Bell Gardens						
City of Cerritos						
City of Commerce						
City of Downey						
City of Huntington Park						
City of Lakewood						
City of Lynwood						
City of Montebello						
City of Norwalk						
City of Paramount						
City of Pico Rivera						
City of Santa Fe Springs						
City of Signal Hill						
City of South Gate						
City of Vernon						
City of Whittier						
Golden State Water Co.						
City of La Habra Heights CWD						
Maywood Mutual Water Co. #1						
Maywood Mutual Water Co. #2						
Maywood Mutual Water Co. #3						
Montebello Land & Water Co.						
Orchard Dale Water District						
Park Water Co.						
Pico Water District						
Rancho Los Amigos - LAC						
San Gabriel Valley Water Co.						
South Montebello Irrigation District						
Suburban Water Systems						
Walnut Park Mutual Water Co.						
Regional Agencies						
County Sanitation Districts of LAC						
Water Replenishment District						
LAC Department of Regional Planning						
Metropolitan Water District						

**Figure 1-1
Imported Water Supply Chain**

To Be Developed

2

Water Demand

This section describes current and future water demand trends within Central Basin's service area

2.1 OVERVIEW

In FY 2009-10, the total water demand for the 1.65 million people living within Central Basin's service area is approximately 257,492 acre-feet (AF) with an annual imported water replenishment demand of about 21,000 AF. One acre-foot equals 326,000 gallons and serves the annual water needs of two families. In 1990, Central Basin's population was 1.4 million and the service area's water demand was 248,570 AF (not including replenishment). In the last 20 years, Central Basin's retail water demand has grown 3.4 percent while service area population has grown 20 percent. The reason for this low growth in demand has been largely due to conservation and public education programs, and to the development of recycled water programs.

Projections show that Central Basin's water usage is expected to increase roughly 3.5 percent over the next five years, but over the next 25 years, Central Basin expects service area demands for imported water to flatten out with the result that per capita water use decrease as shown in Table 2-5. This is due to the expanded role of recycled water as a management tool.

This section will explore in greater detail Central Basin's population trends and historical and current water demands as well as offer some insight into expected future water demands for the next 25 years.

2.2 CLIMATE CHARACTERISTICS

Central Basin's service area lies in the heart of Southern California's coastal plain. The climate is Mediterranean, characterized by typically warm, dry summers and wet, cool winters with an average precipitation level of approximately 15.4 inches per year¹. The combination of mild climate and low rainfall makes the area a popular residential destination, creating a challenge for water agencies in meeting increasing water demands with a limited water supply.

Areas with low precipitation, such as Southern California, are typically vulnerable to droughts. Historically, Southern California has experienced a pattern of severe dry periods (Droughts of 1977-78 and 1987-92), with one of worst occurring from 2005 through 2009. During those four years, the 2006-07 year was considered the driest year with only 3.21 inches of rain recorded in downtown Los Angeles. Any time low rainfall occurs, the region becomes even more reliant upon other sources of water such as groundwater and imported water. Reducing our reliance on imported water is something Central Basin has actively pursued for the last 20 years to ensure future water reliability.

Table 2-1 illustrates the climate characteristics for the Los Angeles region, taken at both the Long Beach Station and the Montebello Station, using data accumulated between 1979 and 2005 (26 years) including standard monthly average ETo² (Long Beach Station), the average rainfall (Montebello Station) and the average temperature (Montebello Station). In comparison to other regions in California with an abundant supply of precipitation each year, the low rainfall in this region invariably challenges Central Basin to provide sufficient, reliable, quality water to meet the area's water needs.

FOOTNOTES:

¹ According to the Western Region Climate Center

² Evapotranspiration is the water lost to the atmosphere by two processes—evaporation and transpiration. Evaporation is the loss from open bodies of water, such as lakes and reservoirs, wetlands, bare soil and snow cover; transpiration is the loss from living-plant surfaces

Table 2-1
Climate Characteristics - Los Angeles Region
Zone 4 - South Coast Inland Plain

	Jan	Feb	Mar	Apr	May	June
Standard Monthly Average Eto ¹	1.86	2.24	3.41	4.50	5.27	5.70
Average Rainfall (inches) ²	3.56	3.91	3.06	0.90	0.23	0.07
Average Temperature (Fahrenheit) ²	69.4	71.1	72.8	77.8	79.4	83.7

	July	Aug	Sept	Oct	Nov	Dec	Annual
Standard Monthly Average Eto	5.89	5.58	4.50	3.41	2.40	1.86	46.62
Average Rainfall (inches)	0.02	0.02	0.20	0.30	1.23	1.88	15.38
Average Temperature (Fahrenheit)	88.6	89.7	87.9	82.6	75.4	70.9	79.1

[1] Data taken from the California Irrigation Management Information System (CIMIS) at the Long Beach

Station for the Southeast Los Angeles Region for Calendar Year 2009:
<http://www.cimis.water.ca.gov/cimis/welcome.jsp>

[2] Data taken from the Western Regional Climate Center's web site at the Montebello Station for the period Jan 1979 through Dec 2005:

<http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?camont>

2.3 DEMOGRAPHICS

Central Basin's service area encompasses 227 squares miles in southeast Los Angeles County and includes 24 cities. There are 26 retail water agencies that include cities, water agencies, publicly-owned mutual water companies and other publicly regulated utilities. This service area includes some of the most densely populated areas in Los Angeles County. According to the Southern California Area Governments (SCAG) 2008 Regional Transportation Plan and the Metropolitan Water District (MWD) demographics data, Central Basin has grown from 1.4 million people in 1990 to 1.65 million people today.

Based on SCAG and MWD demographic projections, population is expected to increase an average of 2 percent every five years for the next 25 years, or one-half of one percent annually. This is much slower growth than was anticipated in Central Basin's 2005 Urban Water Management Plan. By 2035, Central Basin's population is expected to grow by about 155,000 people. Table 2-2 displays the demographic projections for the next 25 years.

Table 2-2 also displays Central Basin's total households, which are expected to increase by 10percent (or 43,900) by 2035. As it relates to water demand, more households will increase the demand on water supplies. As for employment, Central Basin is expected to see a 6.9percent increase by 2035. As

urban employment grows, so does the demand on water supplies.

2.4 HISTORICAL AND CURRENT WATER DEMANDS

The key factors that affect water demand are growth in population, increases in land use development, industrial growth and hydrology. However, since the end of the 1989-92 drought, retail water demand in Central Basin's service area has remained fairly consistent. As illustrated in Figure 2-1, the Central Basin region has not seen significant increases in water demand during the past 15 years despite population growth at an average rate of 10,350 persons per year and continued in-fill development in the service area. Central Basin's service area total water use in FY 2009-10 was 288,450 AF (including recycled water deliveries). Total retail demand was 228,155 AF.

Total water use within Central Basin's service area includes retail demand and groundwater replenishment deliveries. Total retail demand is defined as all municipal (i.e. residential, firefighting, parks, etc.) and industrial uses, and represents the population's total direct water consumption including recycled water, but not replenishment. Groundwater replenishment activities include deliveries to the San Gabriel River Spreading Grounds and Rio Hondo Spreading Grounds (in Pico Rivera) which are not

Table 2-2
Demographic Projections for Central Basin's Service Area¹

Year	2010	2015	2020	2025	2030	2035
Population	1,654,866	1,689,064	1,720,700	1,751,519	1,781,368	1,809,737
Single-family	301,186	307,330	312,886	316,725	320,367	322,932
Multi-family	126,269	131,390	136,352	140,535	144,721	148,425
Total Household	427,455	438,720	449,238	457,260	465,088	471,357
Persons per Household	3.87	3.84	3.83	3.83	3.83	3.84
Employment	553,727	563,417	569,641	591,700	584,740	592,147

[1] Information provided by MWD Demographic Data, October 2009 which is based on SCAG 2008 Transportation Plan.

Note: All units are rounded to the nearest hundred; totals may not sum exactly due to rounding.

directly delivered to the public but enable continued groundwater production to help satisfy retail demand. In May 2007, MWD curtailed deliveries of imported replenishment water due to drought conditions. In FY 2009-10, due to falling groundwater levels Central Basin began delivering higher cost imported water for replenishment purposes.

Figure 2-1 displays Central Basin's total retail water demand from FY 1995 to 2010. As previously discussed, retail demand has remained fairly consistent since 1995 following several years of increasing demands after the drought. However, in 2007 when MWD curtailed replenishment deliveries, total demand fell sharply. Economic conditions pushed water demand down even further in 2009 and 2010. The average total retail demand for the past 15 years is about 255,600 AFY.

Over the last two years, Central Basin's total water use has averaged significantly lower at about 241,600 AFY, which is about 5.5 percent lower than the 15 year average. Table 2-3 provides projected imported water sales (including replenishment activities) to the cities and agencies within the Central Basin service area in comparison to FY 2005-06, which can be considered an average demand year.

Central Basin's service area is using the same amount of water as it did 10 years ago, despite the addition of 148,560 people. This indicates that water conservation and education has significantly affected

the manner in which Central Basin's residents are using water today. We can further verify this by reviewing Central Basin's water usage per person in "Per Capita Water Usage" in Figure 2-2.

2.4.1 PER CAPITA WATER USAGE

In February 2008, the California legislature introduced a seven part comprehensive plan for improving the Sacramento-San Joaquin Delta. As part of that effort, several state agencies were directed to develop a plan to reduce per capita water use statewide by 20 percent by the year 2020. Legislation titled the "Water Conservation Act of 2009" (SB X7-7) enacted the 20 x 2020 concept. As part of the 20 x 2020 plan, all retail water agencies in the state are required to detail how they plan to achieve the mandatory reductions through their Urban Water Management Plans (UWMP). The provision allowed retail water agencies an extended deadline of June 30, 2011 to submit their UWMP.

Statewide Target

According to the State of California³, the state's total urban water usage in 2005 is equivalent to 192 gallons per capita per day (gpcd). However, this number can be misleading because it represents different hydrological regions across the state that have urbanized populations and highly variable climatic conditions that influence water use.

FOOTNOTES:

3 20x2020 Water Conservation Plan – February 2010, pg. 2-27

Table 2-3

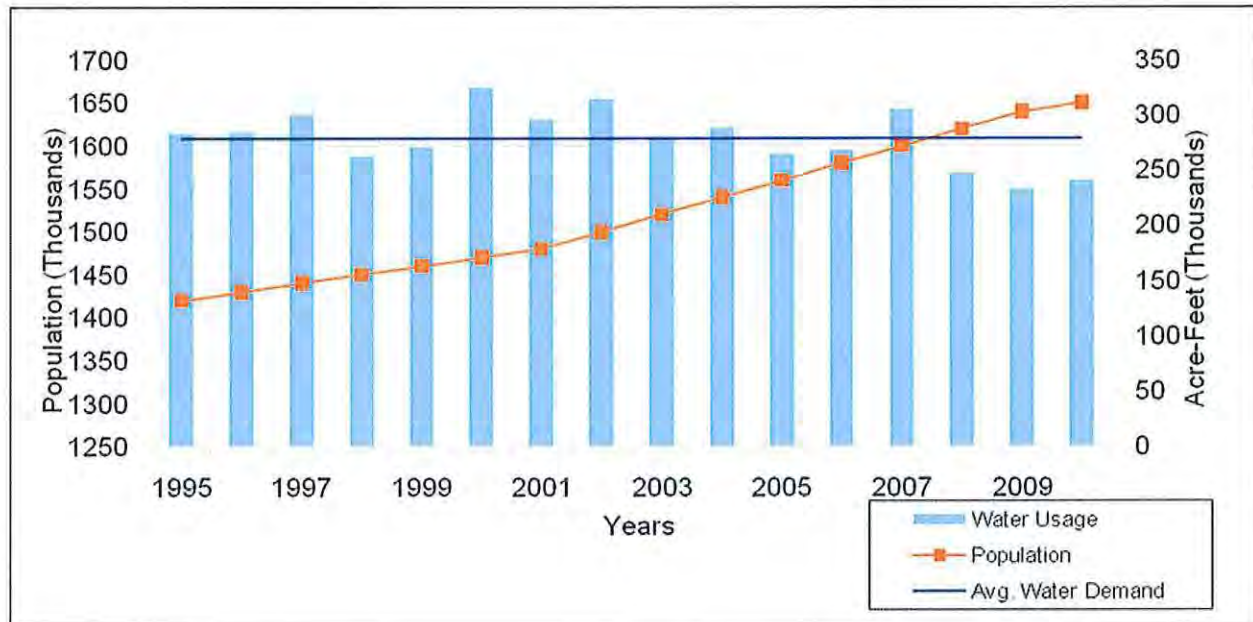
Historical & Projected Imported Water Sales to Central Basin Service Area Retail Agencies¹

<i>Agencies Purchasing Imported Water</i>	FY 2005-06	FY 2009-10	2015	2020	2025	2030	2035
Bellflower-Somerset Mutual Water Company	2,105	1,800	2,100	2,150	2,200	2,300	2,350
California Water Service - East Los Angeles/Commerce	14,428	12,171	14,700	15,150	15,600	16,000	16,500
City of Bell Gardens	1,111	493	1000	1,100	1,100	1,150	1,200
City of Cerritos	625	290	1,000	1,000	1,050	1,100	1,150
City of Downey	0	0	0	0	0	0	0
City of Huntington Park	1,793	1,346	1,600	1,700	1,700	1,750	1,800
City of Lakewood	0	0	0	0	0	0	0
City of Lynwood	1,653	267	850	900	925	950	975
City of Montebello	1,137	1,112	1,300	1,300	1,350	1,400	1,450
City of Norwalk	920	841	100	100	100	100	100
City of Paramount	2,428	2,518	3,100	3,200	3,300	3,400	3,500
City of Santa Fe Springs	2,602	3,683	3,900	4,000	4,100	4,200	4,300
City of Signal Hill	426	135	100	100	100	100	100
City of South Gate	0	0	0	0	0	0	0
City of Vernon	2,785	1,099	1,900	1,950	2,000	2,100	2,150
County of Los Angeles - Rancho Los Amigos	358	308	25	25	25	25	25
Golden State Water Company	10,787	6,944	10,800	11,100	11,400	11,800	12,100
La Habra Heights Water District	114	79	250	260	270	280	290
Maywood Mutual Water Co. No. 1	140	40	100	100	100	100	100
Maywood Mutual Water Co. No. 2	285	26	100	100	100	100	100
Maywood Mutual Water Co. No. 3	0	0	0	0	0	0	0
Orchard Dale Water District	1,216	754	1,100	1,100	1,150	1,200	1,200
Park Water Company	12,098	8,905	11,500	11,800	12,200	12,600	12,900
San Gabriel Valley Water Co	881	0	0	0	0	0	0
Suburban Water Systems	1,992	335	1,000	1,050	1,100	1,100	1,150
Walnut Park Mutual Water Co.	507	0	0	0	0	0	0
Total Imported Water Demand	60,391	43,142	56,525	58,185	59,870	61,755	63,440
Water Replenishment District (Replenishment)²	25,418	20,295	21,000	21,000	21,000	21,000	21,000
Total including Replenishment	85,809	63,437	77,525	79,185	80,870	82,755	84,440

¹Projected imported water sales are not necessarily reflective of the local agency's UWMP. The above projections are based on estimated increases of about 3percent over each five-year period.

²Imported replenishment water sales in FY 2009-10 were actually Tier I untreated. Projected demand for replenishment purposes are based upon WRD's projected annual estimate. The demand can be met through Tier I sales or through Long Term Seasonal Storage sales, when available.

Figure 2-1
Central Basin's Historical Total Retail Water Demand vs. Population



Using that number as the baseline, the state must reduce per capita water demand to 173 gpcd by 2015 as the interim target and 154 gpcd by 2020 to meet the final statewide target.

Regional Target

In the South Coast hydrological region (which incorporates the Central Basin service area as well as all of the MWD service area), the total urban water usage in 2005 was 180 gpcd. Based on the criteria for establishing a target number, the baseline for the South Coast Region is 171 gpcd (which is 95 percent of established target reductions). With this baseline in mind, the South Coast region's interim target for 2015 is 154 gpcd and the final target for 2020 is 137 gpcd.

Central Basin Service Area

Within the Central Basin service area, the gpcd changes annually due to influences of drought or precipitation and water supply. For example, in May 2007, MWD eliminated imported water replenishment deliveries (also known as Seasonal Storage) due to drought conditions. Compared to previous years, that action had the impact of lowering Central Basin's gpcd significantly in the years that followed. In 2010, due to falling groundwater levels, Central Basin, worked with the Water Replenishment District of Southern California (WRD) to purchase 20,295 AF of higher-cost imported water from MWD for replenishment purposes. This slightly increased the gpcd trend as shown in Figure 2-2.

Spreading Demands

Overall, during the last five years, water usage has generally become more efficient, decreasing in 2010 to about 131 gpcd. Figure 2-2 illustrates the retail water usage per capita for the last six fiscal years comparative to population in Central Basin's service area.

Gateway IRWMP

In February 2011, the Gateway Integrated Regional Water Management (Gateway IRWM) group executed an agreement with a consultant to provide services to Gateway IRWMP members to meet the interim and 2020 targets as indicated in SB X7-7 for all agencies in the Gateway IRWM (which includes all of the Central Basin service area). Although Central Basin itself is under no requirements to meet specific gpcd targets, Central Basin has agreed to include the 20x2020 plan in its 2010 UWMP. Since many local agencies will be appending Central Basin's 2010 UWMP to their own UWMP, this approach will achieve adoption compliance.

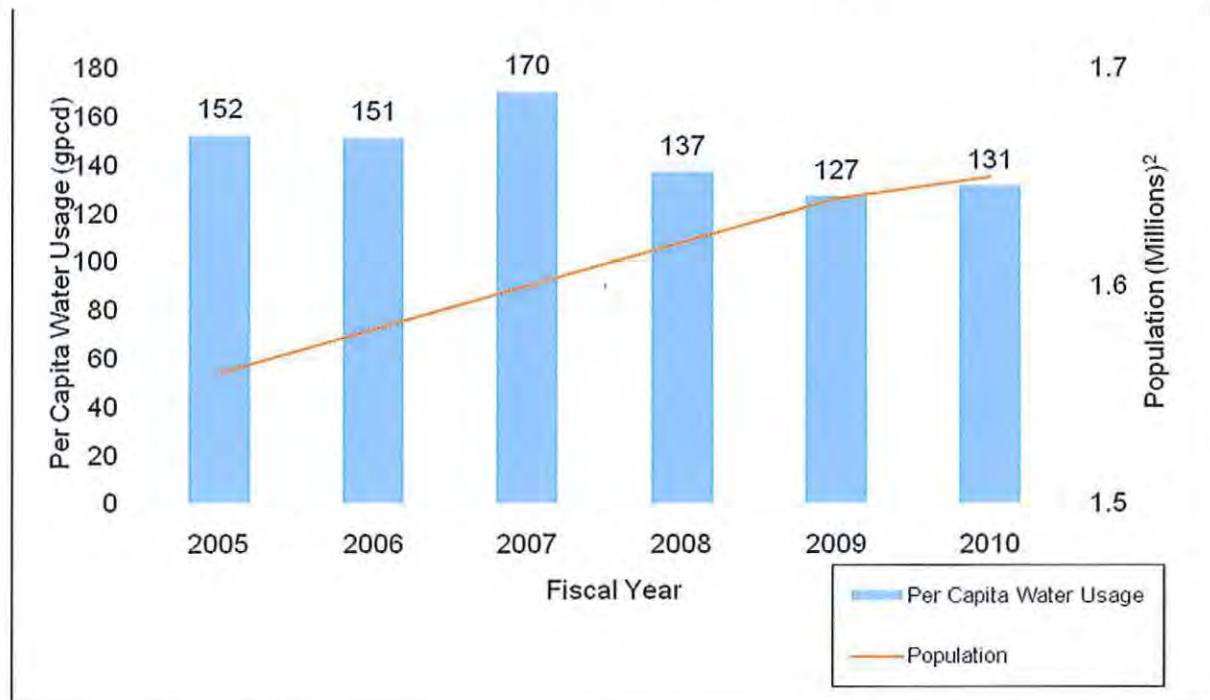
2.4.2 REPLENISHMENT DEMANDS

Replenishment water is defined as water that is used to refill or protect the groundwater basin. The Water Replenishment District of Southern California (WRD) is the entity responsible for purchasing imported and recycled water for replenishing the Central Groundwater Basin.

As groundwater is extracted annually beyond the natural level of replenishment, WRD purchases supplemental water to refill the basin and replenish the amount that is extracted above the basin yield. This replenishment water is a combination of allowable deliveries of recycled water and the purchases of untreated imported water from Central Basin. Storm water is also used for replenishment, but the diversion of storm water into the Rio Hondo and San Gabriel River Spreading Grounds (Spreading Grounds) is managed by the Los Angeles County Department of Public Works (LACDPW).

As the imported water wholesaler, Central Basin provides untreated water to WRD to be conserved at the Spreading Grounds in the Montebello Forebay, located in Pico Rivera and Montebello. Demands at the Spreading Grounds have varied year to year. As shown in Figure 2-3, imported spreading purchases can range from about 46,000 AF to 0 AF in any given year, while there is always some annual variability in demand due to storm activity and drought conditions, typically WRD needs about 21,000 AF of imported water annually to help replenish the Central Groundwater Basin.

Figure 2-2
Historical Per Capita Retail Water Usage¹



[1] Retail water usage includes groundwater, imported water, seasonal spreading, WQPP, and Main Basin deliveries.

[2] Information based on MWD Demographic Data, 2009.

In May of 2007, the MWD Board of Directors made the decision to discontinue replenishment deliveries to all member agencies, including Central Basin, due to drought conditions. Almost immediately, groundwater levels began to fall. In December 2009, monitoring wells in the Montebello Forebay were shown to be at the lowest recorded level in 30 years. Central Basin, working in cooperation with WRD and the City of Long Beach, arranged to purchase more than 25,000 AF of higher cost imported water for replenishment of the Central Groundwater Basin. While monitoring well levels have improved significantly since then, the dangers of not purchasing adequate replenishment supplies to groundwater basins, even at higher costs, remain apparent.

Future replenishment demands are always difficult to project because of the variation in operational changes and replenishment needs. However, based on typical hydrological conditions, WRD will need about 21,000 AF of imported water annually to blend with recycled water and storm water just to maintain current groundwater levels. To actually fill the Central Groundwater Basin will require much higher levels of replenishment from all three sources.

In coming years, two new projects are projected to increase the amount of storm water at the San Gabriel River and Rio Hondo Spreading Grounds within the Central Basin. The first project is currently under construction along Mines Avenue in Pico Rivera. The LACDPW is constructing a 78" conduit with a pump station along Mines Avenue that will allow for the movement of water between the two spreading grounds. When one spreading ground fills with storm water, the water can be moved to the other spreading ground allowing it to percolate into the groundwater basin instead of being lost to the Pacific Ocean, thus conserving the water supply. This project is expected to be completed in September 2010. A second project is the Whittier Narrows Conservation Pool project which proposes to raise the

level of the Whittier Narrows Dam to increase storm water capture. If completed, the project will save about 10,000 AF for recharge in the spreading grounds and will help lessen the need for imported water for replenishment.

2.4.3 RETAIL IMPORTED WATER DEMAND BY CUSTOMER AGENCY

As mentioned above, Central Basin, as a wholesaler, has not seen significant increases in water demand for the past 10 years. However, local retail agencies have experienced significant changes in their overall water demand since 2005.

For comparative purposes, Table 2-3 illustrates the changes in each retail agencies' imported water demands during FY 2005-06 and FY 2009-10. Although some agencies have seen some dramatic shifts in imported water demand during the past five years, the overall demand saw a 28 percent decrease in demand. The significant changes among cities and agencies can be attributed to the national and local economy. When the economy recovers, Central Basin expects imported water demand to begin to increase back to a more normalized level.

Figure 2-3
Imported Water Replenishment Sales in Central Basin's Service Area

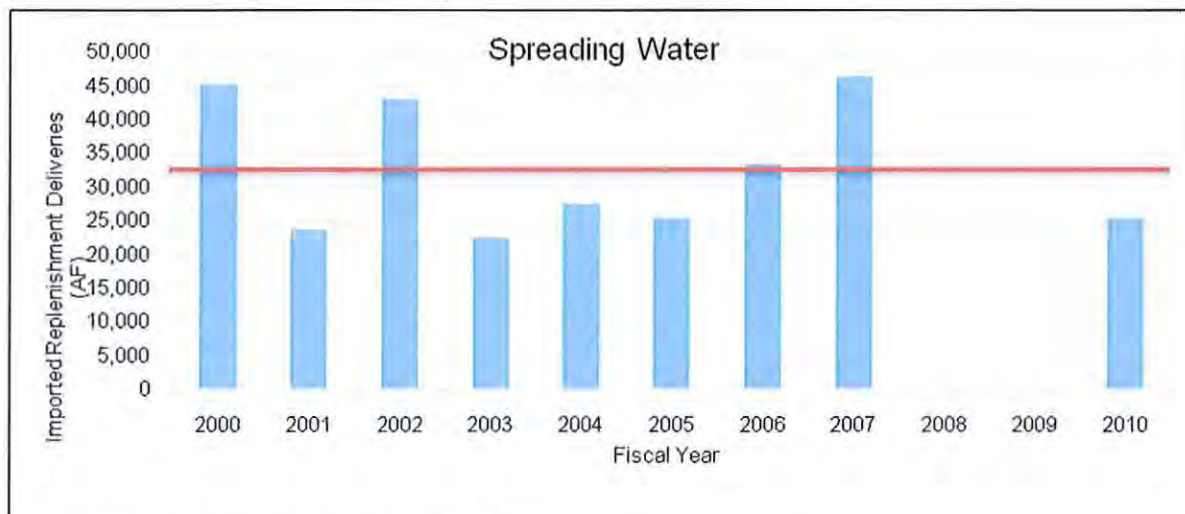


Table 2-4
Central Basin Service Area Current & Future Water Demands

	2010	2015	2020	2025	2030	2035
Retail Municipal and Industrial Demand						
Groundwater ¹	174,318	182,600	184,100	184,600	184,600	184,600
Imported Water ²	63,443	77,525	78,185	80,870	82,755	84,440
Recycled Water ³	6,632	6,700	11,000	16,000	16,000	16,000
Total	244,393	266,825	273,285	281,470	283,355	285,040

¹ Includes both Central Groundwater Basin, San Gabriel Valley "Main" Basin, and WQPP deliveries

² Includes direct deliveries and replenishment deliveries.

³ Direct deliveries from Central Basin's system.

2.5 PROJECTED WATER DEMANDS

One of the objectives of this UWMP is to provide insight into Central Basin's expected water demand for the next 25 years. The predictability of water usage is an important element in planning future water supplies. The methodology used in demand forecasting is a combination of historical water use analysis, population growth and commercial and residential development. Central Basin, with the assistance of MWD's forecasting model known as MWD-MAIN (Municipal and Industrial Needs) Water Use Forecasting System, is able to develop well formulated water demand projections.

The MWD-MAIN forecasting model determines expected urban water usage for the next 25 years. To project water demands, this model incorporates census data, industrial growth, employment and regional development from regional planning agencies, such as SCAG (Southern California Association of Governments). It also features demands in sectors such as single family, multifamily, industrial, commercial and institutional usage for the region. MWD also takes into account current and future water management efforts, such as water conservation Best Management Practices (BMPs) and education programs.

Table 2-4 illustrates the current and projected retail water demands until the year 2035 for Central Basin under normal demand conditions.

Retail imported water demand in Central Basin is expected to grow approximately 0.3 percent over each five year period through 2035. Groundwater will remain consistent, due to the limited amount of extractable pumping rights within the basin, while

recycled water and conserved water will meet the rise in demand during the next 25 years.

2.5.1 PROJECTED PER CAPITA

As discussed previously, water demand is determined by the water usage divided by the population. The future "per capita" use shows that water demand will remain relatively flat as compared to the population increases that are expected over the next 25 years.

Table 2-5 shows a gradual decrease in per capita usage at a time when water has become a scarce commodity and population is projected to increase. Essentially, water use within the Central Basin service area will become more efficient.

Table 2-5
Water Supply Efficiency in the
Central Basin Service Area

Year	Estimated Population ¹ (Millions)	Retail Water Usage ² (AF)	Per Capita (GPCD)
2015	1.689	259,125	137
2020	1.720	262,000	136
2025	1.751	265,000	135
2030	1.781	267,000	134
2035	1.809	269,000	133
Average			135

[1] Information provided by MWD Demographic Data, October 2009 which is based on SCAG 2008 Transportation Plan.

[2] Retail Water Usage includes recycled water but does not include replenishment sales.

3

Water Supply

This section discusses the current and future water supply within Central Basin's service area

3.1 OVERVIEW

It is Central Basin's mission to ensure a safe, adequate and reliable supply of water for the region it serves. However, with increasingly limited and costly water supplies, the task of meeting this mission has become a challenge for Central Basin.

Sixty years ago, retail water agencies in the Central Basin relied completely on groundwater. Today, they rely on a more diverse mix of water resources along with 61percent groundwater, 21percent imported, 16percent recycled water (only M&I) and 11percent conservation efforts. (Note that conservation is an estimate of the amount of water that would have been needed had conservation programs not been implemented). It has been projected that by 2035, the resource mix will depend less upon imported water, with greater reliance upon recycled water development and conservation programs. Central Basin has already begun diversifying water resources to ensure a reliable supply of water for its service area.

This section provides an overview of the current and future water supplies needed to meet the expected demands of Central Basin including: a review of the current and projected water supply mix, a description of each water source Central Basin's service agencies currently rely on and expected future supplies that Central Basin is planning and/or developing to meet its service area future demands.

3.2 CENTRAL BASIN'S WATER SUPPLY PORTFOLIO

Since its formation in 1952, Central Basin has fulfilled its responsibility of providing its customer agencies with supplemental supplies to ensure reliability. Today, diversification is the key to an ample future supply of water throughout its service area. As illustrated in Figure 3-1, Central Basin's supply portfolio has changed through the years.

Similar to creating a balanced investment portfolio in order to reduce risk, Central Basin plans to further diversify its water resource mix during the next 25 years with the expansion of the recycled water system, increased conservation efforts along with groundwater storage opportunities. Central Basin's dependence on imported sources will continue to decrease with the expansion of these alternative resources. Figure 3-1 and Table 3-1 show the current and projected water supply portfolio which Central Basin uses to meet regional demand.

Figure 3-1
Historical, Current & Projected Water Supplies

Pie Charts
To Be Developed

**Table 3-1
Current & Projected Water Supplies in Central Basin
(In Acre-Feet)**

Supply Source	2010	2015	2020	2025	2030	2035
Groundwater ¹	205,960	205,960	205,960	205,960	205,960	205,960
Imported Water ²	72,360	72,360	72,360	72,360	72,360	72,360
Recycled Water ³	23,000	23,000	23,000	23,000	23,000	23,000
Total Supply	301,320	301,320	301,320	301,320	301,320	301,320

Note: Imported supply covers only retail water demand; does not include replenishment deliveries such as spreading

[1] Based upon the total allowable pumping allocation (APA) for each customer agency within Central Basin's service area plus the average amount produced and imported from Main San Gabriel Basin, according to the 2009 DWR Central Basin Watermaster Report.

[2] Central Basin's annual Tier I supply from MWD based on ten-year purchase order annual allocation.

[3] Available supply from CSDLAC per contract.

3.3 CENTRAL BASIN'S WATER SOURCE

3.3.1 IMPORTED WATER SUPPLY

Central Basin currently relies on approximately 63,000 acre-feet per year (AFY) of imported water from the Colorado River and the California State Water Project (SWP) to meet its retail and replenishment demands. The Metropolitan Water District of Southern California imports water from the Colorado River and the State Water Project. That water is then made available to Central Basin and other water agencies throughout Southern California.

Colorado River

MWD was established to develop or import a water supply from the Colorado River by constructing and operating the Colorado River Aqueduct (CRA), which can deliver roughly 1.2 million acre-feet (MAF) per year. Under its contract with the federal government, MWD has a basic entitlement of 550,000 AF per year of Colorado River water, plus a priority for an additional 662,000 AF per year. MWD can obtain additional water under this priority when the U.S. Secretary of the Interior determines that one or both of the following conditions exists:

- Surplus water is available; and/or
- Colorado River Water is apportioned to but unused by Arizona and/or Nevada.

MWD and the State of California have acknowledged that they could obtain less water from the Colorado River in the future than they have in the past, but the lack of clearly quantified water rights has hindered efforts to promote water management projects. The U.S. Secretary of Interior asserted that California's users of Colorado River water have to limit their use to a total of 4.4 MAF per year, plus any available surplus water.



The resulting plan, known as "California's Colorado River Water Use Plan" or the "California 4.4 Plan," characterizes how California could develop a combination of programs to limit its annual use of Colorado River water to 4.4 MAF per year plus any available surplus water. The Quantification Settlement Agreement (QSA) among the California agencies was a critical component of the California 4.4 Plan until February 2010, which was when the Sacramento County Superior Court nullified major portions of the agreement. The court ruled that the state's commitment to be responsible for all mitigation and restoration costs beyond \$163 million from local agencies, was unconditional and a violation of the state's debt limitation, as specified in the California Constitution. MWD and other agencies have filed an appeal that will stay the ruling for a short time. If the ruling is upheld, MWD and its member agencies will likely see higher costs. In addition, the impact of the ruling on CRA supplies cannot be quantified.

The amount of runoff in the Colorado River Basin has been impacted over the last 10 years by an 8-year drought that caused storage levels at Lake Powell and Lake Mead, the two major reservoirs on the Colorado River, to use about 50 percent of capacity, where they remain today. In FY 2009-10, the Colorado River Basin saw slightly above average precipitation for the first time in 10 years.

To reduce the uncertainty of Colorado River supplies, MWD has been actively pursuing water conservation and storage agreements with irrigation districts and other agencies along the Colorado River to secure water sources beyond their basic apportionment. In FY 2009-10, MWD received a nearly full CRA of 1.1 MAF despite having an annual allocation of only 550,000 AF.

State Water Project

California's State Water Project (SWP), MWD's second main source of imported water, is the nation's largest state-built water and power development and conveyance system. It includes facilities-pumping and power plants, reservoirs, lakes, storage tanks, canals, tunnels and pipelines that capture, store and convey water from the Lake Oroville watershed on the Feather River in Northern California to 29 water agencies or contractors throughout the state. Facilities located within Central and Southern California are planned, designed, constructed and now operated and maintained by the California Department of Water Resources (DWR). These facilities provide supplemental water supplies for about 23 million Californians and about 800,000 acres of irrigated farmland, mostly in the state's Central Valley region.

The original State Water Contract called for an ultimate delivery capacity of 4.2 MAF, with MWD

holding a contract for about 1.9 MAF. More than two-thirds of California's imported drinking water, including all of the water supplied by the SWP, passes through the San Francisco-San Joaquin Bay-Delta (Bay-Delta). For decades, the Bay-Delta system has experienced water quality and supply reliability challenges along with conflicts due to variable hydrology and environmental standards that limit pumping operations.



Until very recently, as a contractor to the SWP, MWD enjoyed annual deliveries of about 1.4 MAF. Even with annual fluctuations in hydrology, the SWP was considered to be a highly reliable source of water for the Bay Area, the Central Valley, and Southern California.

In 2004, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service issued Biological Opinions that govern the operation of the SWP as well as the Federal Central Valley Project (CVP) which also takes water from the Bay-Delta. Litigation was filed by environmental groups under the Endangered Species Act claiming that the Biological Opinions did not adequately protect Delta Smelt and the spring-run Chinook salmon. In May 2007, Federal District Judge Oliver Wanger agreed with the litigants and invalidated the Biological Opinions. Judge Wanger also issued an Interim Remedial Order which required the SWP and the CVP to be operated under specified criteria that severely constrained deliveries of water from the Bay-Delta.

In 2008, MWD estimated that it lost 250,000 AF water with the combined loss for all SWP contractors being about 1 MAF.

Operational constraints will likely continue well into the future until a long-term solution for the Bay-Delta

is implemented. MWD, along with state and federal resource agencies, and various environmental and water use agencies are currently engaged in formulating the Bay-Delta Conservation Plan (BDCP). The purpose of BDCP is to help reduce conflicts by developing a set of water flow and habitat restoration projects that contribute to the recovery of endangered species in the Bay-Delta and securing long-term operating permits for the SWP.

Types of Imported Supplies

Depending on the ultimate use, Central Basin has delivered Non-Interruptible Water (treated full-service), Seasonal Treated Replenishment Water and Seasonal Untreated Replenishment Water. MWD offers a variety of imported water supplies to its member agencies.

Non-Interruptible Water is the treated firm supply that is available all year round. Central Basin delivers a five-year average of 60,800 AFY of non-interruptible water annually. It is used as the main supplemental supply for cities and water agencies.

Seasonal Storage Long Term, also known as "In-Lieu" water, is delivered to customer agencies that are eligible to offset groundwater production with imported water. This program incentivizes customer agencies to take surplus imported water which indirectly replenishes the local groundwater basin. This surplus water is purchased at a discount rate in exchange for leaving groundwater in the basin for no less than a year so that it can be used subsequently during dry years.

Seasonal Spreading, better known as replenishment water, is delivered to the San Gabriel River and Rio Hondo Spreading Grounds in the Montebello Forebay. Replenishment water does not require treatment and is generally provided during the seasonal months (October through April), which allows for it to be purchased at a discounted rate. The Water Replenishment District (WRD) purchases imported replenishment water from Central Basin for the purpose of replenishing the Central Groundwater Basin. The amount varies from year to year depending on the replenishment needs of the Groundwater Basin, but typically, the long term average is approximately 21,000 AFY.

In May 2007, due to drought and falling storage levels, MWD curtailed deliveries of both replenishment water and in-lieu water. This curtailment has caused severe impacts to groundwater basins throughout Southern California. In late 2009, after three years of below average rainfall and two years of curtailment of imported water, Central Groundwater Basin levels fell to their lowest level in 30 years. The winter of 2009-10 provided significant storm water flows to the Central Groundwater Basin. At the same time, Central Basin

and the City of Long Beach agreed to sell about 25,000 AF of Tier I imported water to WRD for replenishment. The winter storms of late 2010 as well as sales of about 10,000 AF of higher cost Tier I water have significantly improved the groundwater levels in the Central Groundwater Basin. However, as long as inexpensive imported replenishment water is not available, the groundwater basins will continue to depend on more expensive sources of water for replenishment.

3.3.2 GROUNDWATER SUPPLY

Groundwater has for many years been the primary supply of water within Central Basin's service area. In fact, it was the sole source of water supply until the Central Groundwater Basin was over drafted beginning in the late 1940s and throughout the 1950s. Today, the average retail customer agency in Central Basin relies on groundwater production for about 61 percent of its water supply. Although, there still remain many agencies in Central Basin's service area that rely exclusively on groundwater to meet all current water needs.

Ultimately, the continuous and extensive overpumping of the Basin caused critically low groundwater levels. This overpumping of the Basin resulted in a legal judgment, or adjudication, that limited the allowable extraction that could occur in any given year and assigned water rights to basin pumpers. The adjudicated water rights were greater than the Basin's yield. In essence, the Basin was operating with an annual overdraft. In order to address the overdraft, a strategy was required to purchase imported and recycled water sources. The Central Groundwater Basin Judgment is included as Appendix D.

Water Replenishment District

The groundwater producers (pumpers) in the area, which are members of the Central Basin Water Association, shepherded the creation of the Water Replenishment District of Southern California (WRD). The purpose of the WRD is to act as a financial mechanism that purchases imported and recycled water to replenish the Central Groundwater Basin. In 1959, the State Legislature enacted the Water Replenishment Act, enabling the water associations to secure voter approval for the formation of the "Central and West Basin Water Replenishment District" (now called the Water Replenishment District of Southern California or "WRD"). The WRD has the statutory responsibility to acquire sufficient revenues through an assessment on each acre-foot of water pumped from the groundwater basin to purchase water from other sources to replenish the groundwater supplies within its boundaries for the beneficial use of the approximately 3.5 million residents and water users who rely upon those groundwater resources to satisfy all or a portion of their water needs.

Groundwater Rights

Although the water rights have been bought, sold, exchanged or transferred through the years, the total amount of allowable extraction rights within the entire groundwater basin has remained virtually the same. The adjudicated pumping rights from the Central Groundwater Basin are 217,367 AFY. However, not all holders of these rights are within the Central Basin service area. Those rights holders within Central Basin's service area total 161,836 AF. Some of the groundwater rights holders are nurseries, businesses, schools, cemeteries and private entities that make up about 7 percent (16,679 AF) of the total water rights. Of the remainder, 127,237 AF is the water pumped by Central Basins service area cities and water agencies and 55,531 AF is pumped by cities and agencies not

affiliated with Central Basin Municipal Water District. Table 3-2 shows the adjudicated pumping rights in the Central Groundwater Basin.

Main Basin

Although most of the groundwater supply is extracted from the Central Basin, there are a number of water retailers that retain groundwater rights within the Main San Gabriel Basin (Main Basin) that are extracted and utilized within their Central Basin service area. Main Basin underlies most of the San Gabriel Valley, north of the Central Groundwater Basin. It is bounded by the San Gabriel Mountains to the north, the San Jose Hills to the east, the Puente Hills to the south and by the Raymond Fault and a series of other hills to the west.

Table 3-2
Adjudicated Pumping Rights in Central Groundwater Basin
(In Acre-Feet)

Central Basin Retailer Cities & Agencies	Adjudicated Rights (AF)
Bellflower - Somerset Mutual Water Company	4,313
California Water Service Company - East Los Angeles	11,774
California Water Service Company - Commerce	5,081
City of Bell Gardens	1,914
City of Cerritos	4,680
City of Downey	16,554
City of Huntington Park	3,853
City of Lakewood	9,432
City of Lynwood	5,337
City of Montebello	387
City of Norwalk	1,773
City of Paramount	5,883
City of Santa Fe Springs	4,036
City of Signal Hill	2,022
City of South Gate	11,183
City of Vernon	8,039
County of Los Angeles - Rancho Los Amigos	490
Golden State Water Company	16,439
La Habra Heights County Water District	2,596
Maywood Mutual Water Company No. 1	741
Maywood Mutual Water Company No. 2	912
Maywood Mutual Water Company No. 3	1,407
Orchard Dale Water District	1,107
Park Water Company	2
San Gabriel Valley Water Company	2,565
Suburban Water Systems	3,721
Walnut Park Mutual Water Company	996
Sub-Total	127,237
Groundwater Only Retail Water Agencies	17,920
Agencies Outside of Central Basin Service Area	55,531
Non-Retail Water Agencies	16,679
Total	217,367

Source: Central Basin Watermaster Report, FY 2008-09

The total amount of water extracted from the Main Basin and utilized within the Central Basin service area over the last five years averages to approximately 31,500 AFY. Table 3-3 displays the water retailers and the amount produced from the Main Basin and from the Central Groundwater Basin for the last five fiscal years. The total amount of groundwater produced in the Central Basin and the Main Basin has remained fairly consistent over the last five years. This is due mainly to the fact that both basins are adjudicated, so groundwater extractions in any given year are limited.

The total amount of groundwater projected to be extracted during the next 25 years will also be fairly consistent as shown in Table 3-4. The economic costs to pump groundwater versus the purchases of imported water will continue to pressure water retailers to maximize their groundwater rights.

Groundwater Recharge

For the past 42 years, the Central Groundwater Basin has been replenished through the San Gabriel River and Rio Hondo Spreading Grounds (spreading grounds), which were constructed by the Los Angeles County Flood Control District (LACFCD) and are owned and operated by the Los Angeles County Department of Public Works (LACDPW). The WRD purchases imported water (replenishment or Tier 1 untreated) from Central Basin Municipal Water District and recycled water from the County Sanitation Districts of Los Angeles County (CSDLAC) and asks LACDPW to spread that water in the spreading grounds where it percolates into the Montebello Forebay of the Central Groundwater Basin. Table 3-5 shows the demand projections for imported and recycled water in the Central Basin area.

Table 3-3
Historical Amount of Groundwater Pumped from the
Central Groundwater Basin & Main San Gabriel Basin
(In Acre-Feet)

	2005	2006	2007	2008	2009
Main Basin Retail Agencies					
California Domestic Water Co.	8,327	8,928	8,513	8,466	8,235
San Gabriel Valley Water Co.	3,387	2,310	3,537	4,221	2,240
Suburban Water Systems	11,857	13,708	12,502	12,395	11,527
City of Whittier	7,773	7,953	7,144	8,034	6,527
Sub-Total	31,344	32,899	31,696	33,116	28,530
Central Groundwater Basin	149,443	153,297	156,985	146,336	145,788
Total	180,787	186,196	187,985	181,336	174,318

Source: Central Basin Watermaster Annual Reports & Main Basin Watermaster Reports and agency reports

Table 3-4
Projected Amount of Groundwater Pumped from the
Central Groundwater Basin & Main San Gabriel Basin
(In Acre-Feet)

Basin Name	2015	2020	2025	2030	2035
Central Groundwater Basin ¹	146,500	148,000	148,500	148,500	148,500
Main San Gabriel Basin ²	32,600	32,600	32,600	32,600	32,600
Total	179,100	180,600	180,600	180,600	180,600

[1] Central Basin service area groundwater production including WQPP.

[2] Amount of water production from Main Basin which is utilized in Central Basin's service area.

Table 3-5
Demand Projections for Imported & Recycled Water
in the Central Basin Service Area

Central Basin MWD	2015	2020	2025	2030	2035
Imported Water ¹	56,525	58,185	59,870	61,755	63,440
Recycled Water ²	58,600	62,900	67,900	67,900	67,900
Replenishment Water ³	21,000	21,000	21,000	21,000	21,000
Total	136,125	142,085	148,770	150,655	152,340

1. Municipal & Industrial Demands

2. Central Basin deliveries, Cerritos/Lakewood deliveries & groundwater replenishment estimates

3. Projected annual demand for imported replenishment water.

By statute, WRD assesses a groundwater production fee, a "Replenishment Assessment," to pumpers in the Central Groundwater Basin. The assessment provides funds for WRD to purchase imported water and recycled water, which is for spread to replace pumped groundwater. The available supply of replenishment water to physically recharge the basins can be classified as follows:

• **Local water**

Consists of storm flows from the San Gabriel River, Rio Hondo River and other waterways within the San

Gabriel Valley and flow obligations under the San Gabriel River Judgment with the Upper Area of the Central Basin, defined as "Make-up Water."

• **Recycled water**

Consists of recycled water purchased from CSDLAC for delivery at the spreading grounds.

• **Imported water**

Consists of untreated imported water purchased from Central Basin for delivery at the spreading grounds.

Groundwater Replenishment Graphic

To Be Developed

WRD also encourages in-lieu replenishment of the Central Groundwater Basin. Under the In-Lieu program, pumpers are encouraged through a financial incentive to purchase surplus imported water from Central Basin "in-lieu" of pumping groundwater. However, the incentive program is dependent on the availability of water from MWD.

Table 3-6 summarizes the historical amounts of imported water purchased by WRD to replenish the Central Groundwater Basin at the spreading grounds and to provide for injection into the Alamitos Gap Seawater Barrier.

3.3.3 RECYCLED WATER SUPPLY

Recycled water is one of the cornerstones of Central Basin's efforts to augment local supplies and reduce dependence on imported water. Since the planning and construction of Central Basin's recycling water system in the early 1990s, Central Basin has become a leader in producing and marketing recycled water. Recycled water assists in meeting the demand for non-potable applications such as landscape irrigation, commercial and industrial processes, and seawater barriers. Recycled water is a resource that is reliable and environmentally beneficial to the region. It is only limited by the infrastructure needed for delivery. Through its over 215 site connections, Central Basin has delivered an average of 4,800 AFY over the last five years.

Table 3-6
Historical Imported Water Replenishment Deliveries
(In Acre-Feet)

Fiscal Year	Spreading Water	Barrier Water ¹	Total
1995	21,837	5,269	27,106
1996	18,012	5,739	23,751
1997	22,738	5,336	28,074
1998	952	5,330	6,282
1999	0	6,169	6,169
2000	45,037	5,398	50,435
2001	23,451	6,062	29,513
2002	42,875	3,479	46,354
2003	22,366	0	22,366
2004	27,520	0	27,520
2005	25,296	0	25,296
2006	33,229	0	33,229
2007	46,310	0	46,310
2008	0	0	0
2009	0	0	0
2010	25,295	0	20,295

Source: Central Basin water use database, 2010

[1] Alamitos Barrier supplies transferred to the City of Long Beach in 2003.

In addition, the City of Cerritos has its own recycled water system that currently treats and supplies nearly 2,000 AF per year of recycled water within the City's boundaries and to its neighbor, the City of Lakewood.

Recycled water deliveries within Central Basin are projected to reach 11,000 AF by year 2020. For a detailed description of Central Basin's water recycling program please refer to Section 8.



Recycled water effluent from San Jose Creek Water Recycling Plant.

3.4 ALTERNATIVE WATER SUPPLY PROJECTS

3.4.1 CONJUNCTIVE USE GROUNDWATER STORAGE

Since the early days of groundwater basin adjudication, it has been recognized that a groundwater storage program, utilizing available surface water supplies, would offer tremendous advantages for all pumpers in the Central Basin region. Storing water for later use is the key to ensure reliability for any city or agency.

Conjunctive Use Storage can be defined as the coordinated management of surface and groundwater supplies to increase the yield of both supplies and enhance water supply reliability in an economic and environmentally responsible manner.

The benefits of a Conjunctive Use Storage program include:

- Operational flexibility for groundwater production;
- Increased yield of the basin;
- More efficient use of surplus surface water during wet years;
- Financial benefits to groundwater users;
- Better distribution of water resources; and
- Increased measure of reliability.

Several years ago, WRD, with financial support from the California Department of Water Resources, began a process to define their agency as the public entity responsible for management of a conjunctive use program for the Central Groundwater Basin. Even though that responsibility was not part of their statutory authority, WRD proceeded to define a groundwater storage program in which their Board of Directors will be the ultimate management authority. Although there was agreement with this approach by several cities and agencies, others disagreed. After the court was petitioned by WRD with a change to the Central Basin Judgment to accommodate their storage program, Central Basin filed a petition citing that WRD's management authority for storage did not exist. In the summer of 2010, the court agreed with Central Basin. As a result, in November 2010, the WRD Board of Directors adopted a "Declaration of a Water Emergency." The intent of the declaration was to subvert the Superior Court's decision to establish a storage program. In the meantime, the groundwater table continued to fall. Since its inception in 1959, WRD has not substantially improved the condition of the Central Groundwater Basin through its replenishment plan. What they have done is to simply manage an overdraft situation.

Central Basin envisions the development of a Conjunctive Use Storage Program as part of a larger Water Management Program that will bring groundwater levels up to appropriate levels, which will improve the condition of the basin. This is part of Central Basin's core responsibilities to ensure a reliable supply of water for its service area and to protect the Central Groundwater Basin. When done in a publicly responsible manner, groundwater storage can be viewed as an additional source in diversifying our water resource supply portfolio. In 2011, Central Basin began its environmental review process (California Environmental Quality Act or CEQA) to develop a groundwater storage program with the general public invited to provide input. Over the next year, that program will be defined through a series of transparent public meetings. Central Basin expects to roll out its Groundwater Storage Plan in early 2012.

3.4.2 WATER TRANSFERS & EXCHANGES

Water transfers and exchanges are management tools to address increased water needs in areas of limited supply. Although transfers & exchanges do not generate a new supply of water, they do distribute better water from where it is abundant to where it is limited.

MWD, in recent years, has played an active role statewide in securing water transfers and exchanges as part of their IRP goals in both the Colorado River Basin and along the State Water Project. As a member agency of MWD, Central Basin is the beneficiary of such transfers and exchanges.

3.4.3 DESALINATED WATER

The Central Basin service area is a land locked agency without direct access to the ocean. Therefore, construction of an ocean desalination facility is highly unlikely. Regionally speaking, the area does have active seawater barrier operations to prevent seawater intrusion. However, seawater barriers are not within the Central Basin service area either, so any trapped brackish water is not part of Central Basin's potential resources.

That being said, ocean desalination may provide agencies with ocean access some potential for future resources. However, due to the high energy costs for developing desalination and the lack of accessibility, Central Basin will not be investing in ocean desalination in the near future.

4

Water Reliability

This section discusses Central Basin's plan of maintaining a reliable source of water

4.1 OVERVIEW

Among the future challenges of continued urbanization in Southern California is water reliability. In other words, can Southern California water supply agencies meet the necessary water demands of the region during times of drought or during periods when imported water deliveries are not available in historic quantities? Over the last five years, Southern California water agencies have been hit hard with imported water curtailments from the Sacramento-San Joaquin Bay-Delta and by the imposition of an allocation plan to reduce imported water deliveries to member agencies of Metropolitan Water District (MWD).

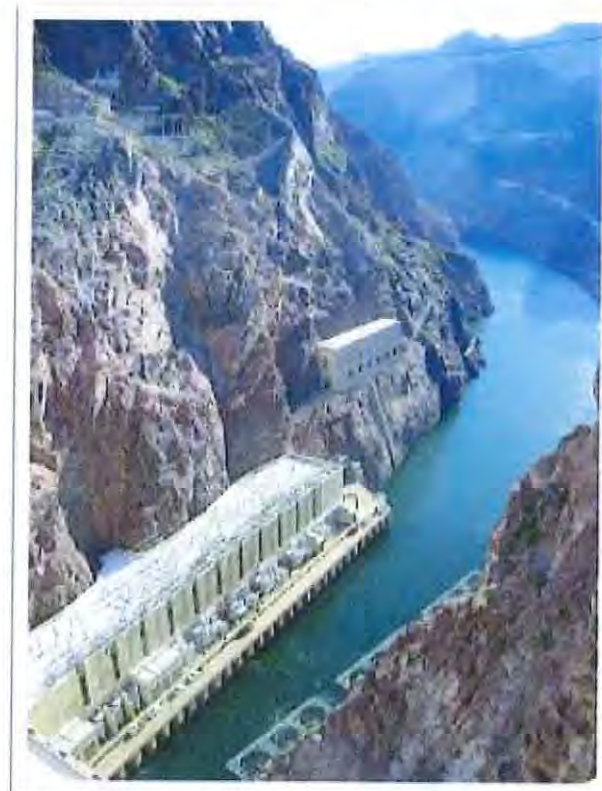
This section will discuss how the regional supplier, MWD, in partnership with its member agencies such as Central Basin, plans on ensuring future reliability through water management measures, long-term planning and investment in local resources, Central Basin's projections for meeting its service area's future demands during single and multiple dry-year conditions and, finally, a review of Central Basin Water Shortage Contingency Plan in the event MWD limits deliveries.

4.2 STATE WATER SUPPLY RELIABILITY

Beginning in 2003, the California Department of Water Resources (DWR) developed a State Water Project (SWP) Reliability Report. The report is meant to provide those SWP contractors with essential information on the reliability to deliver water. The 2009 version of this report was completed in September 2010. The summary report is included in Appendix E. In essence, due the restrictions placed on the SWP by the federal courts, reliability has decreased in the last two years. The 2007 report shows current Table A deliveries averaging 63 percent of the maximum contract amount while the 2009 report shows a reduction to 60 percent. For future conditions of reliability, the 2007 report shows a range of 66 to 69 percent while the 2009 report shows a reduction to 60 percent.

4.3 MWD WATER SUPPLY RELIABILITY

Having experienced the droughts of 1977-78 and 1989-92, MWD has undertaken a number of planning initiatives to ensure water supply reliability. Included among them are the Integrated Resources Plan (IRP), the Water Surplus and Drought Management Plan (WSDM Plan), the Water Supply Allocation Plan (WSAP), and Local Resource Project (LRP) investments. Together, these initiatives have provided the policy framework for MWD and its member agencies to manage their water resources in such a way as to meet the needs of a growing population even under recurrences of the worst historic hydrologic conditions locally and in the key watersheds that supply Southern California. Below is a brief description of each water management initiative MWD has undertaken to ensure continued reliability over the next 20 years.



Colorado River water at Hoover Dam in Nevada.

IRP Pie Charts To Be Developed

4.3.1 MWD INTEGRATED RESOURCE PLAN

To meet the challenges of an increasing population and supply shortages on the State and Colorado River Aqueducts as well as growing State and Federal regulatory requirements, MWD's Board of Directors called for the development of an IRP in 1996. The IRP's objective was to determine the appropriate combination of water resources to provide 100 percent reliability for full service demands over the next 20 years. With the support of its member agencies, MWD developed a preferred supply mix that includes conservation, local supplies (recycled, brackish, desalination), SWP supplies, CRA supplies, groundwater banking and water transfers that could meet projected water demands under severe shortage conditions. The IRP identifies supply targets for each supply option and has become the blueprint for guiding investment and policy decisions for MWD.

By design, the IRP is also subject to revision when conditions and opportunities change through time. In 2004, MWD completed its first update to the IRP, which included revised projected demands and an updated resource supply mix. MWD had three clear objectives for the IRP update: (1) to review the goals and achievements of the 1996 IRP, (2) to identify changed conditions for water resource development and (3) to update the resource targets through 2025.

Among the most significant findings from the updated IRP was the increased participation of local agencies in developing local supplies such as recycled water and brackish groundwater desalination as well as promoting savings from conservation. The result revealed a greater source of local supply reliability than anticipated among MWD's member agencies. However, it also identified the limitations expected on the Colorado River and the need for local infrastructure improvements to provide the flexibility to manage supply risks and increased costs. For example, the continuing drop in water levels in Lake Mead due to drought and over subscription of the Colorado River could have significant impacts on power supply to MWD within the next few years. Currently, Lake Mead is just less than 1,087 feet in elevation, its lowest point in 54 years. If the Lake drops below 1,050 feet, hydroelectric power production would be severely reduced forcing MWD to buy power on the spot market which will cause a drastic rise in water costs to member agencies and ultimately, to consumers. Although it is unlikely that production managers will allow the water level to drop below 1,050, the Colorado River is not producing a sustainable amount of for the needs of California, Arizona, and Nevada, which will have huge impacts to MWD as well as the entire American Southwest.

The California State Water Project (SWP), MWD's other source of water supply, is also in severe

hardship with the collapse of various fish species within the Sacramento-San Joaquin River Delta and federal judicial mandates to reduce water deliveries.

Overall, the 2003 IRP Update revealed a need to decrease the region's reliance on Colorado River and State Water Project (SWP) supplies compared to the 1996 IRP, while continuing to provide 100 percent reliability through the year 2025. The IRP did not anticipate the changed conditions and following legal decisions in regard to the Bay-Delta and the impact those conditions would have on the operations of the SWP and the federal Central Valley Project. As a result, MWD is now engaged in a new IRP update for 2010

2010 IRP Update

In their draft 2010 IRP, MWD laid out their strategy for being reliable by 2030. Much of the update centers on navigating through the uncertainty and vulnerability of present day water resource management. Those uncertainties include a wide variety of topics including climate change, energy use, and Sacramento-San Joaquin River Delta (Bay-Delta) issues like endangered species protection and conveyance. The strategy determined through the 2010 IRP process can be summarized in three components:

Component 1 Core Resources Strategy

MWD will meet its future demands through its traditional core resources which include the State Water Project (SWP) and the Colorado River Aqueduct (CRA), and through increased conservation and local supply development. This strategy includes the following steps:

- Assess the current level of supply development and projected retail demands
- Quantify the existing supply gap
- Identify additional supply development needs within the preferred resource mix to fill the supply gap
- Establish a more diversified role in augmenting local resource development

Component 2 Supply Buffer Implementation

MWD will work with the member agencies to implement a supply buffer through compliance with California mandated requirements in the 20X2020 legislation and through adaptive actions to meet any remaining portion of the 10 percent buffer. This portion of the strategy will be implemented using the following steps:

- Establish a supply buffer at 10 percent of total retail demand of the MWD service area

- Implement a regional consistency approach to meet the 20X2020 targets
- Implement adaptive actions to develop any remaining portion of the supply buffer

Component 3 Foundational Actions

MWD will proactively implement "low-regret" foundational actions that are necessary to bring additional resources online if needed. "Low-regret" actions are those actions that are relatively low-cost with high degree of readiness-to-proceed. In response to a trigger event, the approach will determine an appropriate supply/project mix to meet specific needs within the region. This portion of the strategy can be implemented using the following steps:

- Implement low-regret foundational actions
- Monitor key vulnerabilities and bring resource options if conditions dictate
- Use a comprehensive approach

4.3.2 MWD WATER SURPLUS AND DROUGHT MANAGEMENT PLAN

In order for MWD to be 100 percent reliable in meeting all non-discounted non-interruptible demands in the region, MWD adopted the Water Surplus and Demand Management (WSDM) Plan in 1999. The WSDM Plan provides the policy guidance and prioritization to manage the region's water supplies to achieve the reliability goals of the IRP. The goals are achieved by integrating the operating activities of surplus and shortage supplies through a series of stages and principles. Figure 4-1 shows a schematic of the WSDM plan and the management actions that take place at MWD.

Those principles include water management actions that will apply regardless of the current state of regional water supplies. For example, when a surplus water supply situation exists, 5 different stages are utilized. The stages include filling reservoirs and existing storage accounts. When a supply shortage exists, a seven stage plan is activated to describe management activities during shortages, severe shortages, and extreme shortages. The management activities include securing more imported water by promoting efficient water usage, increasing public awareness and seeking additional water transfers and banking opportunities. Should supplies become limited to the point where imported water demands cannot be met, MWD will allocate water through the Water Supply Allocation Plan (WSAP).

4.3.3 MWD WATER SUPPLY ALLOCATION PLAN

The Water Supply Allocation Plan (WSAP) was adopted by the MWD Board of Directors in April 2008 as statewide water supplies continued to decrease. The WSAP plan is a 10 stage approach to mandatory reductions that start from a 5 percent allocation (Stage 1) for each member agency up to a 50 percent allocation (Stage 10).

Strictly speaking, the WSAP is less of a true allocation plan and more of a financial plan. In other words, any member agency could continue to get imported water over and above their allocation, provided they paid the penalty rate. In effect, this approach rewarded those member agencies with better financial resources and penalized those member agencies that did not have the financial resources. On that basis, Central Basin filed a lawsuit against MWD maintaining that the WSAP did not treat all member agencies fairly. Ultimately, as the MWD staff was getting closer to requesting their Board of Directors to activate the WSAP, MWD relented and offered Central Basin a modification to the WSAP to allow more imported water based on the number of lifeline customers in their service area should the member agency exceed

their allocation. This compromise was acceptable to Central Basin and the lawsuit was dropped. Shortly afterward, in April 2009, as California entered its third drought year, the MWD Board of Directors activated the WSAP, effective July 1, 2009, at the stage 2 or 10percent mandatory reduction level.

The results of the WSAP implementation showed that none of the 26 member agencies exceeded their allocation in FY 2009-10, including Central Basin. According to DWR, these agencies were assisted by nature, which provided a slightly above normal precipitation level (110 percent) statewide. The snowpack in the northern Sierra Nevada Mountains proved to be excellent in FY 2009-10, reaching 122 percent of normal, which in turn, helped reservoirs to capture more water. For FY 2010-11, the MWD Board of Directors voted to continue the WSAP at the same Stage 2 level.

4.3.4 MWD LOCAL RESOURCE PROJECTS

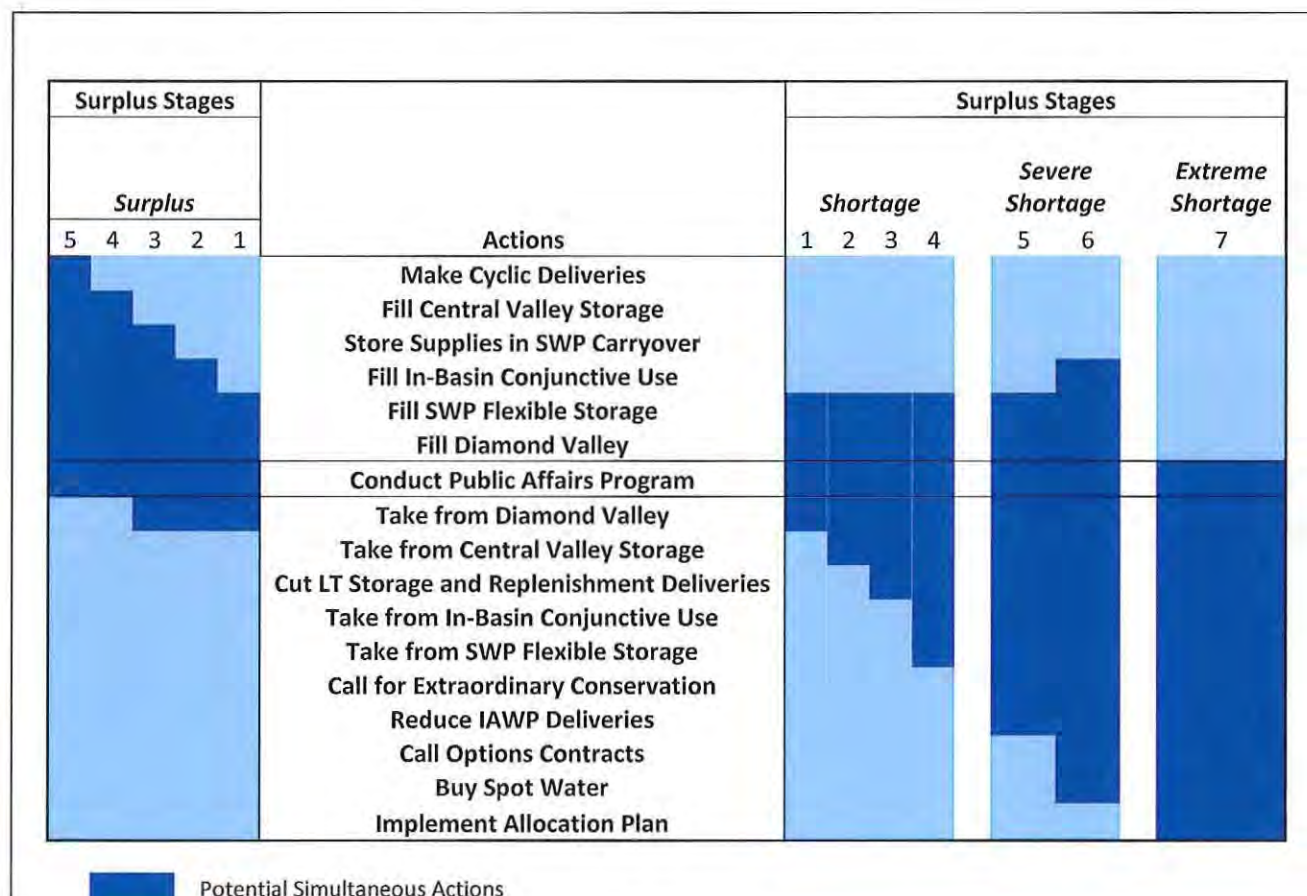
A key element within MWD's IRP objectives to ensure regional reliability is to further enhance local resources. The Local Resource Projects (LRP) program incentivizes member agencies to construct projects that produce water for regional agencies, which in turn help reduce their dependence on MWD. MWD provides a subsidy of up to \$250 per AF of water produced or conserved by the local project. This approach helps reduce operational and programmatic costs for the member agencies while creating a more diversified regional resource mix. MWD provides funding for numerous local resource projects including recycled water, conservation, groundwater recovery, surface water storage and even ocean water desalination to help meet future demands. As described in their 2010 Progress Report to the California Legislature, MWD has provided about \$220 million in LRP incentives to member agencies for recycled water programs, \$89 million for groundwater recovery programs, and \$50 million for conservation programs through their Conservation Credits Program.

Central Basin has long been involved with MWD in the LRP program for recycled water development. Since 1991, MWD has provided Central Basin with about \$15 million for recycled water development, \$3.5 million for conservation programs, and \$5.3 million for groundwater recovery projects such as WQPP.

MWD Facility Improvements

One of MWD's most significant investments is Diamond Valley Lake (DVL), which was completed in 1999 and filled by 2002, and its companion project, the Inland Feeder. Built in the saddle of two mountains,

Figure 4-1
MWD's Water Supply & Demand Management Plan



DVL, Southern California's largest reservoir, is an important link in the regional water supply system. The lake, located in southwestern Riverside County, nearly doubled Southern California's surface storage capacity and provides additional water supplies for drought, peak summer and emergency needs. Water began pouring into the reservoir in November 1999 and the lake was filled by early 2002. DVL holds 800,000 AF, or 260 billion gallons, of water. By comparison, Lake Havasu on the Colorado River holds just 648,000 acre-feet, or 201 billion gallons. When at capacity, DVL holds enough water to meet the region's emergency and drought needs for six months and is an important component in MWD's plan to provide a reliable supply of water to the 18 million people of Southern California.

Inland Feeder Project

The Inland Feeder Project was completed in October 2009. It is a 44-mile conveyance system that connects the State Water Project (SWP) to DVL and

the Colorado River Aqueduct (CRA). Specifically, the project carries water from Devil Canyon in San Bernardino, under the San Bernardino Mountains, and into Riverside County at DVL. The purpose of the \$1.2 billion 12-foot diameter pipeline is to deliver SWP water to DVL for surface storage when that water is available. Before the project was completed, only CRA water was available for storage. This system is designed to increase Southern California's water supply reliability in the face of future weather pattern uncertainties, while minimizing the impact on the Sacramento-San Joaquin Delta (Bay Delta) environment in northern California. The project also will improve the quality of the water coming from DVL because there will be more uniform blending of better quality water from SWP with CRA supplies, which have a higher mineral content. The Inland Feeder Project began deliveries to DVL in late 2009 at about 600 acre-feet per day but has a delivery capacity of almost 2,000 acre-feet per day.



Diamond Valley Lake. Courtesy of MWD.

4.4 CENTRAL BASIN'S WATER SUPPLY RELIABILITY

Along with MWD's reliability initiatives, Central Basin has also taken important steps during the past decade to reduce its service area's vulnerability to extended drought or other potential threats. Central Basin's investments in recycled water to replace imported water for non-potable uses and the implementation of conservation devices and education have resulted in more self-reliance with the region.



Courtesy of MWD.

Colorado River Aqueduct traverses 240 miles of desert to Southern California.

Based on Central Basin's current water supply portfolio, as illustrated in Table 4-1, Central Basin provides an adequate supply for a single dry-water year and multiple dry-water year scenarios. The "Normal Water Year" used in this plan is based on the average rainfall year - FY 2009-10. According to the National Weather Service, the recorded rainfall in FY 2009-10 was 16.36 inches at the Los Angeles Civic Center - one of the closest years to the historical average of 15.38 inches. The "Single Dry Year" is based on the lowest rainfall year - FY 2006-07. The recorded rainfall in FY 2006-07 was only 3.21 inches - the lowest recorded year in Los Angeles history. The three "Multiple Dry-Water Years" used below were based upon the most recent multiple dry-year period - FY 2006-07 (3.21 inches), FY 2007-08 (13.53 inches), and FY 2008-09 (9.08 inches).

Groundwater is shown as a constant in all scenarios due to the Basin's adjudication, which limits the total amount that each customer within Central Basin's service area is able to extract. Recycled water, which includes both Central Basin and the City of Cerritos systems, is limited only by system constraints and not by availability since recycled water is not subject to hydrologic variation. Actual estimated delivery numbers are used in all the scenarios, but as Central Basin's system are expanded over the next several years, so will the capacity to deliver recycled water. Actual Imported water deliveries are used in all scenarios because this supply is now subject to decreased deliveries through MWD's Water Supply Allocation Plan (WSAP) which can be modified from a 5 percent cut of historical deliveries up to a 50 percent cut which will fluctuate under different hydrological scenarios. Future reliability of imported supplies will be based upon a Bay-Delta fix that will include both ecological and operational changes.

The supply reliability scenarios described in this section focus exclusively on municipal and industrial usage within Central Basin's service area. It does not include replenishment water.

Looking forward, Central Basin will continue to evaluate opportunities to increase its water supply portfolio within its service area. Opportunities include the expanded use of recycled water and additional conservation programs as well as groundwater storage through conjunctive use programs.

Table 4-1
Central Basin Municipal Water District
Retail Supply Reliability
(In Acre-Feet)

Supplies	Normal Water Year	Single Dry-Water Year	Multiple Dry-Water Years		
	FY 2009-10	FY 2006-07	FY 2006-07	FY 2007-08	FY 2008-09
Groundwater ¹	194,400	194,400	194,400	194,400	194,400
Imported Water	67,143	68,000	68,000	59,000	52,750
Recycled Water ²	6,630	7,960	7,960	7,700	7,000
Total Supply	268,173	270,360	270,360	261,100	254,150

Note: Supply Reliability covers only retail water demand; does not include replenishment deliveries.

[1] Based upon the total allowable pumping allocation (APA) for each customer agency within Central Basin's service area, plus groundwater only retailers and non-retail water agencies and average annual production from Main San Gabriel Basin according to FY 2008-09 Central Basin Watermaster Report and FY 2008-09 Main Basin Watermaster Report.

[2] Includes actual deliveries of recycled water for both the Central Basin system and the City of Cerritos.

4.4.1 NORMAL-YEAR RELIABILITY COMPARISON

As discussed in Section 2 - Water Demand, Central Basin's normal demands are projected to increase modestly during the next 25 years. Increases in recycled water use during the 25-year planning period will offset the need for additional imported water.

4.4.2 SINGLE DRY-YEAR RELIABILITY COMPARISON

Central Basin's projected single dry-year water supply is expected to require additional imported supplies from MWD. According to historic demands, the total water demands in a single dry-year are projected to be 2.1 percent greater than normal year projections. Much of the increased demand will be covered through the further development of recycled water in the Central Basin system. Table 4-3 compares single dry-year supply and demand projections for the Central Basin service area. For imported supplies, MWD should be able to provide sufficient supplies to all member agencies from their various storage options, so the WSAP would probably not be activated in a single dry-year scenario.

Table 4-2
Projected Normal Water Year Supply And Demand
(In Acre-Feet)

Supplies	2015	2020	2025	2030	2035
Groundwater ¹	194,400	194,400	194,400	194,400	194,400
Imported Water ²	72,360	72,360	72,360	72,360	72,360
Recycled Water ³	12,900	17,900	17,900	17,900	17,900
Total Supply	279,660	284,660	284,660	284,660	284,660
Total Demand⁴	245,825	253,285	260,470	262,355	264,040
Surplus/(Shortage)	33,835	31,375	24,190	22,305	20,620

Note: Supply Reliability covers only retail water demand; does not include replenishment deliveries.

[1] Based upon the total allowable pumping allocation (APA) for each customer agency within Central Basin's service area (refer to Table 3-2) including WQPP and the average annual amount imported from the Main San Gabriel Basin.

[2] Based upon Tier I limitations for deliveries consistent with Central Basin's purchase order.

[3] Includes the available supply of recycled water for both Central Basin and Cerritos systems.

[4] Total Demand includes projected groundwater, imported and recycled M&I demands.

Table 4-3
Projected Single Dry-Year Supply And Demand
(In Acre-Feet)

Supplies	2015	2020	2025	2030	2035
Groundwater ¹	194,400	194,400	194,400	194,400	194,400
Imported Water ²	72,360	72,360	72,360	72,360	72,360
Recycled Water ³	12,900	17,900	17,900	17,900	17,900
Total Supply	279,660	284,660	284,660	284,660	284,660
Total Demand⁴	250,987	258,604	265,940	267,864	269,585
Surplus/(Shortage)	28,673	26,056	18,720	16,796	15,075

Note: Supply Reliability covers only retail water demand; does not include replenishment deliveries.

4.4.3 MULTIPLE DRY-YEAR RELIABILITY COMPARISON

Under multiple dry-year water scenarios, MWD will have likely activated their WSAP. Since the severity of the allocation will vary according to hydrological conditions, Central Basin will assume a level 2 or 10 percent reduction scenario in the third year of a multiple dry-year period throughout MWD's service area. Therefore, Central Basin is projected to meet demands by continuing to expand recycled water development and further implement conservation programs. Tables 4-4 through 4-8 illustrate the projected water supplies and demands within multiple dry-year reliability comparisons for the next 25 years.

Table 4-6
Projected Water Supply and Demand during Multiple
Dry-Year 2023-2025
(In Acre-Feet)

Supplies	2023	2024	2025
Groundwater ¹	194,400	194,400	194,400
Imported Water	72,360	72,360	69,711
Recycled Water ²	17,900	17,900	17,900
Total Supply	284,660	284,660	282,011
Total Demand³	262,272	264,106	265,940
Surplus/(Shortage)	22,388	20,554	16,071

Table 4-4
Projected Water Supply and Demand during Multiple
Dry-Year 2013-2015
(In Acre-Feet)

Supplies	2013	2014	2015
Groundwater ¹	194,400	194,400	194,400
Imported Water	72,360	72,360	69,711
Recycled Water ²	6,600	8,000	12,900
Total Supply	273,360	274,760	277,011
Total Demand³	245,825	250,987	259,125
Surplus/(Shortage)	27,535	23,773	17,886

Table 4-7
Projected Water Supply and Demand during Multiple
Dry-Year 2028-2030
(In Acre-Feet)

Supplies	2028	2029	2030
Groundwater ¹	194,400	194,400	194,400
Imported Water	72,360	72,360	69,711
Recycled Water ²	17,900	17,900	17,900
Total Supply	284,660	284,660	282,011
Total Demand³	266,902	267,383	267,864
Surplus/(Shortage)	17,758	17,277	14,147

Table 4-5
Projected Water Supply and Demand during Multiple
Dry-Year 2018-2020
(In Acre-Feet)

Supplies	2018	2019	2020
Groundwater ¹	194,400	194,400	194,400
Imported Water	72,360	72,360	69,711
Recycled Water ²	14,000	16,000	17,900
Total Supply	280,760	282,760	282,011
Total Demand³	254,795	256,702	258,604
Surplus/(Shortage)	25,965	26,058	23,407

Table 4-8
Projected Water Supply and Demand during Multiple
Dry-Year 2033-2035
(In Acre-Feet)

Supplies	2033	2034	2035
Groundwater ¹	194,400	194,400	194,400
Imported Water	72,360	72,360	69,711
Recycled Water ²	17,900	17,900	17,900
Total Supply	284,660	284,660	282,011
Total Demand³	268,725	269,155	269,585
Surplus/(Shortage)	15,935	15,505	12,426

Note: Supply Reliability covers only retail water demand; does not include replenishment deliveries.

[1] Based upon the total allowable pumping allocation (APA) for each customer agency within Central Basin's service area plus the average amount produced and imported from Main San Gabriel Basin.

[2] Includes the available supply of recycled water based on system limitations for both Central Basin and the City of Cerritos.

[3] Total demand refers to total retail demand from groundwater, imported and recycled M&I.

4.5 WATER SHORTAGE CONTINGENCY PLAN

The State requires that each urban water supplier should provide a water shortage contingency analysis within its urban water management plan. Below is a brief description of Central Basin's plan for a water shortage according to the state's water code requirements.

4.5.1 MINIMUM SUPPLY

Currently, Central Basin's water supplies are groundwater, imported water and recycled water. As it relates to the estimated minimum supply available during a severe drought, Central Basin's groundwater supplies, as stated in Section 3, are not affected by hydrology because the Central Groundwater Basin is adjudicated. The available supply for each groundwater producer (Allowable Production Allocation), set by the Judgment, remains the same regardless of Central Basin's service area's rainfall. The same relates to recycled water, where the supply is not affected by hydrology but rather through system capacity. The benefit of recycled water is that it is drought-proof and the supply of recycled water remains available regardless of the rainfall. Due to ongoing construction projects such as Phase I of Southeast Water Reliability Project (SWRP), expansion of the recycled water supply will continue to increase. Imported water, on the other hand, is the only supply affected by hydrology. MWD's WSAP came in effect on July 1, 2009 and is expected to remain in effect at the mandatory reduction level of Stage 2 (10 percent) through FY 2010-11.

Assuming drought conditions remain unchanged, Central Basin will be limited to a calendar year Tier I imported water supply of 72,360 AF, although a prolonged drought would likely increase the mandatory reduction to a higher level and thus decrease available imported supplies. The estimated minimum supplies during the next three years for Central Basin are shown in Table 4-9.

It is the policy of the Central Basin Board of Directors to pass through all financial actions imposed on Central Basin by MWD, but in this case, a policy to pass through an allocation plan did not exist. Therefore, in June 2009, the Central Basin Board of Directors adopted the "Imported Water Supply Allocation Policy" which included a plan to allocate water to the cities and agencies (Appendix E). That policy remains in effect as Central Basin's Water Shortage Contingency Plan if and when MWD activates their WSAP or if local conditions require its implementation.

Table 4-9
Three-year Estimated Minimum Water Supply
(In Acre-Feet)

Supplies	2011	2012	2013
Groundwater ¹	194,400	194,400	194,400
Imported Water	72,360	72,360	72,360
Recycled Water ²	5,200	5,500	5,900
Total Supply	271,960	272,260	272,660
Total Demand³	245,150	248,500	251,900
Surplus/(Shortage)	26,810	23,760	20,760

Note: Supply reliability covers only retail water demand; does not include replenishment deliveries.

[1] Based upon the total allowable pumping allocation (APA) for each customer agency within Central Basin's service area plus the average amount produced and imported from Main San Gabriel Basin, according to the FY 2008-09 Central Basin Watermaster Report and FY 2008-09 Main Basin Watermaster report.

[2] Includes the available supply of recycled water system for both Central Basin and the City of Cerritos.

[3] Total Demand includes projected groundwater within Central Basin's service area, imported and recycled M&I demands

4.5.2 CATASTROPHIC SUPPLY INTERRUPTION

In the event imported water supplies are interrupted from a catastrophic event, Central Basin, through coordination with MWD, can respond at both a regional and a local level.

In the event that an emergency such as an earthquake, system failure or regional power outage, etc., affected the entire Southern California region, MWD would take the lead and activate its Emergency Operation Center (EOC). The EOC coordinates MWD's and Central Basin's responses to the emergency and concentrates efforts to ensure the system can begin distributing potable water in a timely manner.

If circumstances render the Southern California's aqueducts to be out of service, MWD's Diamond Valley Lake is expected to provide emergency storage supplies for its entire service area's firm demand for up to six months. With few exceptions, MWD can deliver this emergency supply throughout its service area via gravity flow, thereby eliminating dependence on power sources that could also be disrupted. Furthermore, should additional supplies be needed, MWD also has surface reservoirs and groundwater conjunctive use storage accounts that can be draw upon to meet additional demands. The WSDM plan guides MWD's management of available supplies and resources during an emergency to minimize the impacts of a catastrophic event.

4.6 INCONSISTENCY OF SUPPLIES

Overall, Central Basin has very consistent water supplies. Every source, however, has some factor that limits its availability. Table 4-10 provides a thumbnail view of the various factors regarding each of the water supply sources.

Table 4-10
Factors Resulting in Inconsistency of Supply (In Acre-Feet)

Water Supply Sources	Limitation Quantification	Legal	Environmental	Water Quality	Climatic	System Constraints
Imported Water						
State Water Project		✓	✓		✓	✓
Colorado River		✓	✓		✓	✓
Sub-Total ¹	60,750					
Groundwater						
Central GW Basin	150,400	✓				
Main Basin	31,500	✓				
Sub-Total ²	181,900					
Recycled Water						
Central Basin System	4,670	✓				✓
Cerritos System	2,333	✓				✓
Sub-Total ³	7,003					
Total						

5

Water Quality

This section discusses the Water Quality within Central Basin's service area

5.1 OVERVIEW

Water quality regulations are an important factor in Central Basin's water management activities. Metropolitan Water District of Southern California (MWD) is responsible for complying with state and federal drinking water regulations for imported water sold in Central Basin. Cities and water agencies to which Central Basin sells imported water are responsible for ensuring compliance in their individual distribution systems up to the customer's water meter.

For groundwater quality, Central Basin assisted purveyors in its service area to meet drinking water standards through its Cooperative Basin-Wide Title 22 Groundwater Quality Monitoring Program. Title 22 is in reference to the California Code of Regulations section pertaining to both domestic drinking water and recycled water standards. Central Basin offered this program to water agencies for wellhead and reservoir sample collection, water quality testing and reporting services, but transferred the program to the Water Replenishment District (WRD) in 2007. Results of the program are compiled and published in an annual report issued by the WRD.

For imported water quality, Central Basin has developed an imported water quality notification system with those cities and agencies that have access to imported water deliveries. The purpose is to notify cities and agencies through regular emails about the current status of important water quality information as it relates to Total Dissolved Solids (TDS), Total Trihalomethanes (THM's), Coliforms, Bromate, Fluoride, Ammonia/Nitrates, etc. More importantly, it allows cities and agencies to be notified when a significant water quality issue needs to be communicated immediately.

Except for a few instances of groundwater contamination problems, the Central Groundwater Basin has remarkably good water quality. There are still a few contamination problems in isolated areas of the Central Groundwater Basin. These include:

- Perchlorate
- Manganese
- Volatile Organic Compounds (VOC's)

5.2 QUALITY OF EXISTING WATER SUPPLIES

Providing a safe drinking water supply to Central Basin's customers is a task of paramount importance. All prudent actions are taken to ensure that water delivered throughout the service area meets or exceeds drinking water standards set by the state's primary water quality regulatory agency, the California Department of Public Health (CDPH).

As the regional wholesale agency in Southern California, MWD is proactive in its water quality efforts, protecting its water quality interests in the State Water Project and the Colorado River through active participation in processes that would provide for the highest water quality from both sources.

This section will focus on the sources of water in the Central Basin area and the water quality issues and challenges for each.

5.2.1 IMPORTED WATER

Central Basin's imported water comes from the State Water Project and Colorado River via MWD pipelines and aqueducts. MWD tests its water for microbial, organic, inorganic and radioactive contaminants as well as pesticides and herbicides. Protection of MWD's water system is a top priority. To date, MWD has not identified any water quality risk that cannot be mitigated.

In coordination with its 26 member agencies, MWD added new security measures in 2001 and continues to upgrade and refine procedures. Changes have included an increase in the number of water quality tests conducted each year (more than 300,000) as well as contingency plans that coordinate with the Homeland Security Office's multicolored tiered risk alert system. MWD also has one of the most advanced laboratories in the country where water quality staff performs tests, collects data, reviews results, prepares reports and researches other treatment technologies. Although not required, MWD monitors and samples elements that are not regulated but have captured scientific and/or public interest.

MWD has a strong record of identifying those water quality issues that are most concerning and have identified necessary water management strategies to minimize the impact on water supplies. Part of its strategy is to support and be involved in programs that address water quality concerns related to both the SWP and Colorado River supplies. Some of the programs and activities include:

- **Delta Improvement Package** – MWD in conjunction with California Department of Water Resources (DWR) and U.S. Geologic Survey completed modeling efforts of the Delta to determine if levee modifications at Franks Tract would reduce ocean salinity concentrations in water exported from the Delta. Currently, tidal flows trap high saline water in the tract. By constructing gates across the levee breach, saline and bromide levels can be reduced by 27 percent at the State Water Project intake in the South Delta.

- **Source Water Protection** – In December 2006, MWD completed a "Watershed Sanitary Survey" on its Colorado River operations. In June 2007, MWD conducted the same survey on their State Water Project operations. These surveys are required to be completed every five years. Once completed, they are submitted to CDPH to examine possible sources of drinking water contamination and identify mitigation measures that could be taken to protect the water supply at the source.

Water from the Colorado River is considered to be most vulnerable to contamination by recreation, urban/storm water runoff, increasing urbanization in the watershed, wastewater and past industrial practices. Water supplies from State Water Project are most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater contamination.

Overall, salinity remains the greatest water quality threat to the CRA and SWP. In 1999, the MWD Board of Directors adopted a Salinity Management Policy which set a goal of achieving salinity concentrations of 500 milligrams per liter or parts per million (ppm). Typically, Colorado River Water supplies have concentrations of about 630 ppm while State Water Project supplies have concentrations of about 250 ppm. To achieve the 500 ppm target, MWD blends the waters together in their surface reservoirs or at their treatment plants to significantly reduce salinity in seven out of ten years. In other years, when State Water Project water is not available in sufficient quantities, higher concentrations of salinity could be a problem for the member agencies and/or the local retail agencies. Further

blending with groundwater supplies will probably be necessary.

Disinfection Byproducts

MWD receives imported water from two sources; the Sacramento-San Joaquin River Bay-Delta via the State Water Project (SWP) and the Colorado River via the Colorado River Aqueduct (CRA). These waters are treated with chlorine and/or ozone at one of their 5 treatment plants before being placed into their main distribution system. Unlike CRA water, SWP water is generally heavy with total organic carbon (TOC) and bromide. When these constituents are mixed with chlorine or ozone, disinfection byproducts (DBP) can and do occur. The most prevalent DBP is Total Trihalomethane or TTHM. TTHM's have generally been associated with reproductive and developmental effects in human. Therefore, MWD consistently samples for TTHM's at all treatment plant locations. In 2002, the U.S. Environmental Protection Agency (EPA) introduced a new regulation called "Stage 1 Disinfectants and Disinfection Byproducts Rule." TTHM's are on the list and have a Maximum Contaminant Level of 80 ppb.

Pharmaceuticals and Personal Care Products

Pharmaceuticals and Personal Care Products (PPCP) are considered an emerging contaminate throughout the nation's watersheds. PPCP's have become a growing concern to the water industry specifically because studies show their compounds can be found in wastewater, surface water, and even in finished drinking water throughout the country. To date, there is no evidence that PPCP's are harmful to humans in low concentrations. That being said, there are no regulatory requirements for PPCP's mainly because there is no standardized analytical method to test for these compounds.

MWD has established a monitoring program to look for these compounds in treatment plant effluent and source waters within the Colorado River and State Water Project watersheds. There has been PPCP's detected in these waters at low levels which is consistent with reports from other utilities throughout the country. MWD remains involved in various studies to determine how to further develop analytical methods to test for PPCP's and mitigate their entry into local waters.

5.2.2 GROUNDWATER

Groundwater in the Central Basin is continually monitored because of its susceptibility to seawater intrusion, potential contamination from adjacent basins and migration of shallow contamination into

deeper aquifers. The Alamitos Barrier, located in the southwest portion of Central Basin's service area, provides a buffer between the groundwater basin and seawater intrusion. The available supply of replenishment water to physically recharge the Basin includes local and imported water. The local water that recharges the groundwater basin comes from storm flows from the San Gabriel Valley and flow obligations under the San Gabriel River Judgment with the Upper Area of the Central Basin. This water is defined as "Make-Up Water." Imported Water is purchased from MWD to be used for surface spreading at the Montebello Forebay and for seawater barrier injection at the Alamitos Barrier. Recycled water is purchased from the County Sanitation Districts of Los Angeles County (CSDLAC) for spreading and injection.

As mentioned in the overview, the Central Groundwater Basin has very good water quality overall. However, there are several contaminants in isolated areas that are still a concern.

Perchlorate

Perchlorate was used as component of rocket fuel. As such, wherever there was a defense industry complex, perchlorate can usually be found. Perchlorate is a health concern because of its effects on the thyroid. Perchlorate interferes with the thyroid's ability to produce hormones required for normal growth and development. People most affected are infants and small children and pregnant woman. In 1999, the CDPH recommended that drinking water wells be tested for the rocket fuel component, perchlorate. CDPH required all water purveyors in the state to monitor for perchlorate under the Unregulated Contaminant Monitoring Rule. The results showed that perchlorate was a serious problem in drinking water wells throughout the state, but only in certain areas. The CDPH then established a primary drinking water standard for perchlorate with a Maximum Contaminate Level (MCL) of 6 micrograms per liter or parts per billion starting October 18, 2007. (There is no federal drinking water standard).

In the Central Basin, perchlorate has been detected in nine separate wells. Once detected, the wells were shut down and are no longer used. This is because perchlorate is not easily removed with standard wellhead treatment technologies, so much more expensive treatment technologies such as ion exchange must be employed.

The San Gabriel Valley Groundwater Basin was an important home of the defense industry in the 1950's and 1960's. Because of the amount of experimentation with rockets and rocket fuels, perchlorate is one of the most abundant contaminants that seeped into the groundwater. In response, the Central Basin Board of Directors supported a plan to clean up the contaminated groundwater before it

migrated into the Central Groundwater Basin. The "San Gabriel Basin Restoration Fund" was established through an act of Congress and the San Gabriel Valley Water Quality Authority was created. Eleven firms agreed to pay \$200 million to construct various treatment facilities and other water quality projects throughout the San Gabriel Valley to remove contaminants and restore the groundwater basin. That effort by the Water Quality Authority continues to this day.

Manganese

Manganese is a required nutrient that exists in natural environments. Humans need about 1 to 10 milligrams per day for normal dietary requirements. However, elevated levels can have serious impacts, particularly on children. For example, neurologic damage (mental and emotional disturbances, as well as difficulty in moving) has been reported to be permanent among miners exposed to high levels of airborne manganese for long periods of time. Lower chronic exposures in the workplace resulted in a decrease in various motor skills, balance and coordination, as well as increased memory loss, anxiety, and sleeplessness. In 2003, the CDPH established Manganese as a secondary contaminant with an MCL of .5 micrograms per liter or parts per billion. Included in this secondary standard is an aesthetics MCL of .05 parts per billion. This MCL is related to discoloration, but not health concerns. Still, any public water system affected by manganese must notify their customers that manganese is present at either level. Notification through the annual Consumer Confidence Report (CCR) is acceptable to the CDPH.

Central Basin's service area has traces of manganese throughout the region, but it is generally in low quantities and is managed through blending. However, manganese is most apparent in the area of Maywood where Central Basin is providing technical assistance to the local water agencies to reduce manganese below the MCL. Central Basin will continue to offer assistance as needed until manganese is no longer a contamination problem or an aesthetic problem for the residents of Maywood.

Volatile Organic Compounds

Volatile Organic Compounds (VOC's) such as perchloroethylene (PCE) was used as the primary chemical by dry cleaners for decades and trichloroethylene (TCE) was used as an industrial cleaning and degreasing solvent. Both of these organic compounds were generally used in quantities sufficient to contaminate the groundwater and both of them are considered carcinogenic even at low concentrations. So their cleaning becomes very important to the region. Although the Central Groundwater Basin is not a strong source of VOC's, the San Gabriel Valley "Main" Basin is.

In the Main Basin, VOC's have remained a persistent problem. There are a number of granulated activated

carbon (GAC) wellhead treatment programs underway in the San Gabriel Valley. However, about fifteen years ago, the U.S. Environmental Protection Agency (EPA) and Central Basin noted the movement of VOC's from Main Basin into the Central Groundwater Basin through the Whittier Narrows area. Central Basin took action and in 2001, began construction of the Water Quality Protection Program (WQPP) to intercept and treat the VOC plume before it could arrive at local wells. For more information, please see 5.5 Water Quality Protection Project.

Water Replenishment District Water Quality Programs

As the groundwater replenishment agency for the Central Groundwater Basin, the Water Replenishment District (WRD) has programs to monitor groundwater levels and quality.

WRD's Regional Groundwater Monitoring Program consists of a network of about 200 WRD and USGS-installed monitoring wells at 45 locations throughout the Central Basin region. Monitoring well data is supplemented with information from production wells to capture the most accurate information available. WRD staff provides the in-house capability to collect, analyze and report groundwater data. This information is stored in a GIS database and provides the basis to better understand the characteristics of the Central Groundwater Basin. WRD makes this information available through an annual Regional Groundwater Monitoring Report which documents groundwater production, groundwater levels, and groundwater quality conditions throughout the Central Basin.

5.2.3 RECYCLED WATER

Tertiary recycled water that meets Title 22 standards can be used for a wide variety of industrial and irrigation purposes where high-quality, non-potable water is needed. Recycled water is not consumed directly by humans but rather is delivered in an entirely separate distribution system which is not allowed to come in contact with drinking water systems.

In Central Basin's service area, recycled water is developed and produced by the County Sanitation Districts of Los Angeles County (CSDLAC) at their treatment plants. Recycled water meets all applicable state water quality regulations for the recycled water it purchases and distributes through its two systems. Central Basin purchases recycled water from CSDLAC's San Jose Creek Water Reclamation Plant and Los Coyotes Water Recycling Plant (WRP). These two plants together produce approximately 120 MGD of tertiary- treated effluent. Recycled water from CSDLAC's reclamation plants not reused is discharged to the ocean directly through major flood control channels.

5.3 EFFECTS ON WATER MANAGEMENT STRATEGIES

Poor water quality makes a water source unreliable, affects overall supply and increases the cost of serving water to the public. A water source that fails drinking water regulations must be taken out of service. The source can be restored through treatment or other management strategies.

Imported water deliveries are of high importance to the Central Basin service area. While many cities and agencies are heavily reliant upon imported water as part of their resource mix, many depend upon imported water to blend down certain water quality contaminants to meet water quality standards.

Groundwater can become impaired through leaching of contaminants into an aquifer, or by excessive concentrations of naturally-occurring constituents that impact quality, such as arsenic. Surface water sources become contaminated from human activities in the watershed or deliberate contamination.

Replenishment

Replenishment of the Central Groundwater Basin is accomplished through the acquisition of three sources of water by the Water Replenishment District. Replenishment water is delivered to the Rio Hondo & San Gabriel River Spreading Grounds and allowed to percolate into the Central Groundwater Basin. The three sources are:

- Recycled Water – Purchased by WRD from the CSDLAC and spread in the Rio Hondo & San Gabriel River Spreading Grounds by the Los Angeles County Department of Public Works (LACDPW) at a limit of 33percent for all sources.
- Storm Water – Storm flows are captured from the San Gabriel River and directed into the spreading grounds by LACDPW at the capacity of the spreading grounds, and
- Imported Water – Purchased by WRD from Central Basin and delivered to the spreading grounds by LACDPW.

Due to drought and judicial decisions, inexpensive imported water for replenishment has not been available since May 2007. This situation, combined with a lack of storm water due to drought, has had the effect limiting replenishment to recycled water and some storm water. Although WRD has been replenishing the Groundwater Basin with recycled water for about 50 years, in 2008, the Los Angeles Regional Water Quality Control Board (LARWQCB) upgraded WRD's permit to allow unlimited replenishment with recycled water provided WRD adheres to a blend of no more than 30 percent with other sources over a five year period. WRD will

continue to monitor conditions in the Central Groundwater Basin and report to the LARWQCB.

5.4 EFFECTS ON RECYCLED SUPPLY RELIABILITY

The quality of recycled water is regularly monitored by the CSDLAC for process control, regulatory compliance and customer development. The results of these tests are reported annually to the LARWQCB which provides the permits to CSDLAC. Through special sampling and testing, customers can have the confidence of knowing that they are receiving the quality of recycled water needed for their particular uses.

5.5 WATER QUALITY PROTECTION PROJECT

In the early 1980s, the San Gabriel Valley aquifer, also referred to as "Main Basin", was discovered to have contaminants including trichloroethylene (TCE) and perchloroethylene (PCE) in the water supply. Based on the contamination level, the U.S. Environmental Protection Agency (EPA) declared the area as a Superfund site. The contamination plume moved south into the Whittier Narrows area toward the Central Groundwater Basin over the next 20 years and threatened local groundwater supplies. The EPA developed a new groundwater treatment facility called the "Whittier Narrows Operable Unit" (WNOU) to deal with the contamination, but it was soon discovered that the plume had already moved passed the new facility. In 2000, Central Basin developed a containment plan known as the Water Quality Protection Project (WQPP). Central Basin received \$10 million in Federal funding for the implementation of the WQPP with the dual objective of cleaning up the existing plume and preventing the further migration of contaminants into the Central Groundwater Basin. Congressional funding legislation was enacted in December 2000.

By taking necessary steps to ensure removal of the contaminants, the WQPP prevented the contamination from reaching the San Gabriel River and Rio Hondo Spreading Grounds. The cleanup of the aquifer at no cost to Central Basin produces a safe and reliable supply of potable water supply to participating groundwater producers without effecting water rates and minimizes the impact of rising energy costs.

The \$10 million project consists of two extraction wells with a collector pipeline and a treatment facility. The extraction wells pump out the contaminated groundwater with a combined rate of approximately 2,000 gallons per minute and convey it via the collector pipeline to the central treatment facility for purification.

To ensure service while saving costs, Central Basin entered into an agreement with the City of Whittier to locate the treatment facility at the City of Whittier's main water facility yard in Pico Rivera. Whittier then utilizes its own booster pumps to send the water to the City of Pico Rivera and Santa Fe Springs for use in their distribution systems. The WQPP is operated by the City of Whittier for Central Basin.

Operations began in December 2004 with WQPP delivering over 4,600 AF to the Cities of Whittier, Pico Rivera, and Santa Fe Springs. Since then, extraction and deliveries have leveled off to about 3,500 AFY, mainly due to Whittier's decision to stop taking WQPP water in July 2008.

The \$10 million funding was used not only for the construction of the above facilities, but also for operating costs. Unfortunately, due to higher construction costs than was anticipated; the funding allocated to the WQPP nearly ran out in 2007. Central Basin considered shutting down the WQPP in 2007, but agencies in the Whittier Narrows area were still concerned about the plume and recommended that Central Basin continue to operate the WQPP. So Central Basin engineered a Memorandum of Understanding with the three principle cities, Pico Rivera, Santa Fe Springs and Whittier to pay a higher price per acre-foot to keep the facility operating until new federal funding could be authorized.

In late 2009, with the support and assistance of Congress member Grace Napolitano, Central Basin secured \$11.2 million in funding to operate the WQPP for approximately 10 more years. Central Basin is expecting the first installment of funding in 2011.

6

Water Conservation

This section discusses Central Basin's Water Conservation Programs

6.1 OVERVIEW

In the last two decades, the Central Basin Municipal Water District (Central Basin) has continued to achieve extraordinary success through its water conservation efforts. Beginning 2006, conservation efforts were heightened with the adoption of Central Basin's 5-year Water Conservation Master Plan (CMP). The CMP, evaluated current and future water savings potential in the Central Basin service area and outlined a cost-effective conservation strategy for the Central Basin service area.

Since 2006, Central Basin has also received more than \$4 million in grant funding from local, state and federal government agencies to develop and launch innovative water conservation programs. As a result of these efforts, Central Basin now has a diverse program portfolio in place—which includes a bilingual outreach campaign titled “*Shut Your Tap!*”—that will assist the greater Los Angeles County region in meeting the State of California's aggressive 20x2020 water conservation goal.

In 2009, a landmark water emergency was declared in California. As communities across the state recognized the need for greater water conservation, at the local level, funding for conservation programs was drastically reduced by the Metropolitan Water District (MWD). In order to support conservation efforts within the local communities during this critical time, Central Basin embarked on strengthening its existing partnerships and forging new ones with water

retailers, purveyors and cities throughout its service area. This effort largely began with the introduction of the *Shut Your Tap!* Campaign.

The *Shut Your Tap!* Campaign (and its Spanish-language counterpart *¡Cierre Su Llave!*) emphasizes community partnerships and grassroots outreach to promote water conservation within Central Basin's 24-city service area. Since its launch in April 2009, it has proven to be a highly successful outreach tool to raise awareness about the need to conserve, while working to encourage simple yet lasting behavioral changes in the way people use water every day. To date, a total of 24 cities in the Central Basin service area have officially joined the campaign. In addition, in 2009 the Los Angeles County Board of Supervisors declared May 19th to be the official “*Shut Your Tap! Day*” in Los Angeles County.

A core under-pinning of the campaign is partnerships, as it is the local partnerships that create synergy and ultimately conservation actions within the community. Through the campaign, local agencies and community members work together to achieve results that are many times greater than what could be achieved separately. Central Basin's service area is fortunate to be home to some of the most diverse demographics in the world, and it is through collaborative efforts such as these that we are able to bring the message of water conservation to the communities we serve.

Through the campaign, and other programs introduced under the CMP, Central Basin has partnered with numerous government and public agencies to bring important services and programs to the local communities. Below is a sample list of regional agencies Central Basin has partnered with:

County & State Agencies-----	School Districts
Legislators-----	Utility Companies
Non-Profit Organizations-----	Water Agencies and Retailers
Fire Departments	

6.2 CENTRAL BASIN'S PAST AND CURRENT WATER CONSERVATION EFFORTS

Today, Central Basin's conservation programs are made up of a wide array of cost-effective programs that are offered free to participants:

Distribution Programs

High-Efficiency Toilets
Water Brooms
Weather Based Irrigation Controllers
Showerheads
Aerators

Direct Installation Programs

WaterFree Urinals
California Friendly Demonstration Gardens
Large Landscape Irrigation Programs
High-Efficiency Clothes Washers
Weather Based Irrigation Controllers
High-Efficiency Toilets

Public Education and Outreach

Shut Your Tap! Conservation Campaign
Bilingual Speakers Bureau
Multicultural Outreach
School Education Programs
California Friendly Garden Workshops

Rebate Programs

Synthetic Turf
Weather Based Irrigation Controllers

6.2.1 METROPOLITAN WATER DISTRICT'S CONSERVATION GOAL

Metropolitan Water District (MWD) is responsible for providing a safe and reliable water supply to its 26 member agencies and the 19 million residents who live and work throughout its 5,200-square-mile service area in Southern California.

In response to the continuing drought conditions here in California, and the state's 20X2020 plan, MWD calculated their projected water savings based on their current conservation plan and determined that, when compared to the state's plan, there was a 575,000 acre feet shortfall.

MWD is taking action to close the gap and has developed the framework for a long term conservation plan. Framework details include, but are not limited to: education, outreach, water use ordinances, market transformation and behavioral change. Central Basin, along with other MWD Member Agencies, will partner with MWD to implement the new plan to reduce water consumption per capita by 20percent by the year 2020.

6.3 CALIFORNIA URBAN WATER CONSERVATION COUNCIL

The California Urban Water Conservation Council (CUWCC) is a membership organization dedicated to maximizing urban water conservation throughout California by supporting and integrating innovative technologies and practices, encouraging effective public policy, advancing research, training and public education, and building on collaborative approaches and partnerships.

The CUWCC utilizes Best Management Practices (BMP) to benchmark an agency's conservation efforts. Central Basin was one of the first agencies to become a signatory to the CUWCC's Memorandum of Understanding, and as water wholesaler, has successfully complied with the BMPs every filing year since becoming a member.

6.3 1 BEST MANAGEMENT PRACTICES (BMP)

The CUWCC's BMPs are a list of recommended conservation measures that have been proven to provide reliable savings to a given urban area. There are currently a total of 14 BMPs, making up a combination of established BMPs, some exclusively for wholesalers, some exclusively for retailers, and some a combination of the two. As a wholesaler, Central Basin is required to report on the following BMPs:

BMP# 3	System Water Audits, Leak Detection and Repair
BMP# 7	Public Information Programs
BMP# 8	School Education Programs
BMP# 1	Wholesale Agency Assistance Programs
BMP#12	Conservation Coordinator

6.4 CENTRAL BASIN BMP COMPLIANCE

6.4. 1 BMP#1 – Water Survey Programs for Single-Family and Multi-Family Residential Customers

Because Central Basin is a water wholesaler and does not have direct access to single or multifamily customer account data, Central Basin can only provide support to the water retailers.

6.4. 2 BMP#2 – Residential Plumbing Retrofit

High-Efficiency Toilet (HET) programs are a key element in the conservation successes Central Basin has experienced over the years. Central Basin's HET programs have been implemented through various partnerships and grant programs, and have been made available throughout the service area. Thousands of free HETs have

been distributed to eligible customers over the last few years.

Central Basin anticipates other opportunities for additional water savings through HET programs in the coming years. The Central Basin service area is home to many disabled or disadvantaged residents, and the free distribution of much-needed conservation devices continues to be in demand. Given the current economic down-turn, Central Basin is focusing its attention on securing additional sources of funding to make such programs possible.

6.4. 3 BMP#3 – System Water Audits, Leak Detection and Repair

This BMP is geared to water retailers. However, Central Basin has provided leak detection and repair support in the past.

6.4. 4 BMP#4 – Metering with Commodity Rates for all New Connections and Retrofit of Existing

As a wholesaler, Central Basin does not sell directly to the end-user and does not have metering with which to administer commodity rates.

6.4. 5 BMP#5 – Large Landscape Conservation Programs and Incentives

In addition to the MWD region-wide "SoCal Water\$mart" and "Save-A-Buck" rebate programs, which offer rebates for certain qualifying conservation devices to customers throughout the MWD service area, Central Basin also has various large landscape conservation programs including:

- A District-wide large landscape managed irrigation program incorporating maintenance, monitoring and tracking of individual property water savings
- Federal and State grants providing over 2,000 Smart Controllers to residential and commercial customers
- A city partnership program to install Smart Irrigation Controllers in parks and street medians
- A Commercial Landscape research grant to improve water use efficiency at schools, parks and open public spaces

6.4. 6 BMP#6 – High-Efficiency Washing Machine Rebate Programs

Central Basin continues to implement region-wide rebate programs through MWDs Save-A-Buck and SoCal Water\$mart rebate programs. Central Basin adds additional funding to qualifying Washing Machine devices and

receives supplementary funding from participating retail agencies.

6.4. 7 BMP#7 – Public Information Programs

Central Basin's public information efforts consist of a variety of programs and practices that are used to educate the public about water conservation. Conservation literature is provided to the public at various one-day programs and at community events.

Central Basin also provides the community with a Speakers Bureau in which or through which Directors and staff work with local civic organizations and service clubs to provide information on a variety of programs and projects that promote conservation. Additionally, Central Basin provides education through a website, an interactive Blog, and various publication materials.

Website and Social Media

Central Basin has effectively bolstered its community outreach and public education programs by integrating social marketing strategies with existing outreach programs. Central Basin uses social media to disseminate information through websites such as Twitter, Facebook and YouTube. Central Basin has realized many campaign successes of increased community involvement, which is reflective in the upward curve of its website traffic.

By utilizing technology, Central Basin has connected with residents and businesses in a new and exciting way to promote the benefits and importance of water conservation. From Central Basin's Watercooler Blog—the "First Official Water Blog in California"—to Facebook and Twitter, the District's social media strategy is tailored to meet the needs of the local community.

6.4. 8 BMP#8 – School Education Programs

Collaborative classroom visitation programs are a key element in Central Basin's student outreach efforts. The following is a brief description of the free water education programs offered by Central Basin:

- Water Squad Investigations (Grades 4 – 12)
- Water Wanderings (Grades 4 – 5)
- Think Watershed (Grades 4 – 6)
- Think Earth! It's Magic (Grades K – 5)
- Think Water! It's Magic (After School Program for Grades K – 5)
- "Water Is Life" Poster Contest (Grades 4 – 8)
- Waterlogged (Grades 9 – 12)
- Sewer Science (Grades 9-12)
- Conservation Connection: Water & Energy in Southern California (Grades 5 – 8)
- Water for the City: Southern California Urban Water Cycle (Grades 4 – 8)

6.4. 9 BMP#9 – Conservation Programs for Commercial, Industrial and Institutional Facilities Accounts

Central Basin participates in MWD's region-wide commercial "Save A Buck" rebate program, which provides water conservation devices to be utilized in commercial, industrial and institutional facilities and settings. The devices include but are not limited to High-Efficiency Toilets, Ultra Low and Zero Water Urinals, Weather-based Irrigation Controllers, Nozzles, Water Brooms and various industrial process devices.

In addition, Central Basin distributed conservation Water Brooms to all 31 Los Angeles County Fire Stations within the District's service area. In addition, 49 brooms were distributed to local municipalities, and 30 brooms to schools. Water Brooms provide an estimated 150 gallons of water savings with each cleaning.

In addition, Central Basin has implemented Commercial, Industrial and Institutional direct installation programs for HETs and Low and Zero water use Urinal Direct Installs through grant programs and local water retail agency partnerships. The District has also partnered with local agencies to install Smart Irrigation Controllers in City parks, street medians and City facilities.

6.4. 10 BMP #10 – Wholesale Agency Assistance Programs

As a part of Central Basin's "Shut Your Tap!" Conservation Campaign, the District hosts a bi-monthly event called the "Shut Your Tap! Roundtable". The Roundtable provides a forum for cities, water agencies, and interested parties to share ideas and information on conservation trends and issues. The setting provides a great forum for interaction and networking among water stakeholders.

In an effort to provide Central Basin cities with support for their marketing, outreach, and enforcement of local mandatory water conservation ordinances, a "Water Use Efficiency Ordinance Tool Kit" was developed and provided to each city. The Tool Kit included a cover letter, sample ordinances, a sample staff report template, sample violation notices, and ordinance enforcement collateral.

To add to the advertising opportunities of our campaign partners, a Conservation Messaging Tool Kit was also provided to cities and water retail agencies. Each kit includes water conservation tip sheets, door hangers, bill inserts, local cable TV announcements, countertop tent cards, and sample newsletter articles.

6.4. 11 BMP #11 - Conservation Pricing

Although the Conservation Pricing BMP refers to the rate structures of a retail water agency to encourage customers to use less water, Central Basin, as a wholesale water agency, employs a similar model for its customers by incentivizing the large scale sale of imported water. Central Basin employs a two-tier rate structure in which cities and agencies are invited to enter into 5-year "purchase agreements." The agreements provide Central Basin with a longer term guarantee of water sales while providing the city or agency access to a discounted imported water rate.

6.4. 12 BMP #12 – Conservation Coordinator

As the regional wholesaler, Central Basin employs one full-time Conservation Coordinator who works throughout the District's service area to promote water conservation. The coordinator also works with cities and water agencies to foster consumer behavioral change and implement various conservation programs that result in significant reduction in overall retail water use.

6.4.13 BMP #13 – Water Waste Prohibition

In response to the State of California's 20X2020 campaign announcement, MWD developed a model "Mandatory Water Use Efficiency Ordinance", and appealed to all MWD Member Agencies to work within their respective service areas to urge cities to adopt the MWD model ordinance.

Strategic outreach and a broad collaborative effort were needed to introduce the Water Use Efficiency (WUE) ordinance to the 24 cities within Central Basin's service area. As a first step, Central Basin created a WUE Ordinance Task Force, comprised of members from surrounding cities and retail agencies, to reach out to the District's 24 cities and unincorporated communities. In addition, each city was provided with a Water-Use Efficiency Ordinance Tool Kit, compliments of Central Basin.

6.4. 14 BMP #14 – Residential Ultra Low Flow Toilet (ULFT) Replacement Programs

Although BMP #14 is listed under the CUWCC standards as Ultra Low Flow Toilets (ULFT), technology standards have replaced the 1.6 gpf ULFT with High-Efficiency 1.28 gpf Toilets (HET). Today, the District only uses HETs and continues to report the activity under BMP #14.

HET Distribution Events

HETs have been a key element in the conservation success Central Basin has experienced over the years. Free HET Distribution events have provided thousands of free toilets to local residents throughout Central Basin's service area. The District's HET programs have been initiated through various partnerships and grant programs, and have been

made available throughout Central Basin's service area.

HET Direct Installation Programs

Since 2005, Central Basin has completed more than 5,000 High-Efficiency Toilet (HET) direct installations in single family, multifamily, and commercial, industrial and institutional (CII) facilities throughout Central Basin's service area.

Local HET Partnership Programs

Central Basin receives requests to participate in various local partnerships to provide disadvantaged residents with HETs. Central Basin's service area is home to many disadvantaged residents, and the need for free, water-conserving toilets remains high. Given the current economic down-turn, the conservation coordinator is focusing attention on securing additional sources of funding to make HET programs possible.

6.4. 15 ADDITIONAL CONSERVATION PROGRAMS

CONSERVATION PARTNERSHIPS

Central Basin continues to take advantage of opportunities to achieve additional water savings through new and creative partnerships with local cities, schools, government agencies and non-profit organizations. One such partnership with the Los Angeles County Conservation Corps brought free, educational gardening workshops to local residents. The workshops, which are offered in English and Spanish, provide information on California native plants and gardening tips for residents, business owners, and local landscapers. In another example, ongoing partnerships with Southern California Edison and the Gas Company have made it possible to provide educational conservation programs to sixth grade students throughout the service area.

These partnerships have proven to be diverse in nature and valuable in strengthening the conservation efforts within Central Basin's service area, particularly within the more disadvantaged areas.

Water Wasting Prohibition City Ordinances

Following the call for increased conservation efforts under the state's 20X2020 Plan, the District formed a *Shut Your Tap!* Water Conservation Ordinance Task Force to advocate the adoption of mandatory water conservation ordinances in each city in the District's service area. As a result of the efforts of the Task Force's efforts, 18 cities now have mandatory conservation ordinances in place.

6.4. 16 GRANT PROGRAMS

Central Basin has been successful in receiving grant funding for conservation programs at the federal,

state, and local levels through agencies such as the United States Department of Energy (DOE), the Department of Water Resources (DWR), and MWD. The following list provides a brief summary of the individual water conservation grants that have been implemented since 2005:

MWD Grant (Innovative Conservation Program Grant) - 200 HET Direct Install

Central Basin has successfully completed a MWD Innovative Conservation Grant Program, installing 200 HETs in multi-family homes and commercial facilities. The total budget for this grant was \$43,800.

MWD Grant (Innovative Conservation Program Grant) – Bell Gardens: California Friendly City – A Model for Inner City Transformation

In 2006, Central Basin was awarded \$102,250 to transform the City of Bell Gardens into the first California Friendly City in the State of California through the installation of water saving devices and systems throughout the City's public facilities. These included high-efficiency toilets, urinals, synthetic turf at the public soccer field, water-brooms, native plants and a weather-based irrigation system.

MWD (Enhanced Conservation Program Grant) – Landscape High Efficiency Living Program (HELP)

In 2008, Central Basin was awarded a MWD Enhanced Conservation Program Grant in the amount of \$90,000 to provide HELP Landscape Workshops to local residents to teach the benefits of utilizing an MP Rotator irrigation device and planting low water-use plants. The use of MP Rotators alone can save 4.16 to 16.8 gallons of water per minute.

DWR Grant (Prop 50) – High Efficiency Living Program (HELP) 10,000 HET Direct Install

In 2007, Central Basin was awarded a DWR grant in the amount of \$1,563,900. The grant program provides funding to market, purchase and install 10,000 HETs in multi-family residential units throughout the service area. The water savings for this program will reach 242 acre-feet annually for 25 years.

DWR Grant (Prop 50) - Conservation Outreach Targeting Multicultural Communities

In 2007, Central Basin was awarded a DWR grant program in the amount of \$100,000 to provide cities and water retailers with conservation outreach training and tools. The funding provides for website design, research services and bill-stuffer templates to be used by the District's water retailers. The purpose of the program is to promote water conservation within the multicultural and multilingual communities prevalent in the service area.

DWR Grant (Prop 50) – Urban City Makeover Program

Through the DWR Prop 50 Urban City Makeover Program, grant funding in the amount of \$113,746 will provide nine disadvantaged cities with a number of

water-saving resources. These include: high-efficiency toilets (HETs), Waterfree urinals, native plants, weather-based irrigation controllers and water brooms. The participating cities are: Bell Gardens, Commerce, Cudahy, Hawaiian Gardens, Huntington Park, Lynwood, Maywood, Paramount, and South Gate.

DWR Grant (Prop 50) – Helping Our People and Environment (HOPE) 3,000 HET Direct Install

Since 2009, Central Basin has administered the "Helping Our People and Environment" (HOPE) grant program on behalf of the City of Maywood. This Prop 50 grant program provides funding to install 3,000 High-Efficiency Toilets (HETs) in residences throughout the city of Maywood.

DWR Grant (Prop 50) – Zero Water Consumption Urinal Retrofit Program – 2,600 Urinal Retrofit Program

In 2003, Central Basin secured a DWR grant entitled Zero Water Consumption Urinal Retrofit Program in the amount of \$780,000. The program provided no-cost installations of 2,600 water-free urinals to qualified commercial, industrial, and institutional buildings located within the Central Basin service area.

DWR Grant (Prop 50) – Commercial Landscape Wireless Valve End Use Management Research Project

The Commercial Landscape Wireless Valve End Use Management Research Project awarded to Central Basin by DWR in the amount of \$302,052, involves the implementation of wireless valve evapotranspiration (ET) controllers in non-residential sites. The research goal is to enhance water management and water efficiency at the local, regional, and statewide levels.

DWR Grant (Prop 50) – Large Landscape Water Conservation, Runoff Reduction and Educational Program

The Large Landscape Water Conservation, Runoff Reduction and Educational Program provides \$900,000 in funding for the implementation of a water management program using weather-based irrigation controllers and wireless technologies to significantly reduce the amount of runoff from large landscapes, street medians, and residential properties.

Included in the grant funding are five large community demonstration gardens. Central Basin will partner with local public agencies such as cities and school Districts to create Demonstration Gardens that enrich the environmental awareness of the community and promote the benefits of water efficient gardens.

U.S. D.O.E. (Energy Efficiency Conservation Block) Water and Energy Emergency End Use Demand Management Measures Grant

The Water and Energy Emergency End Use Demand Management Measures Grant in the amount of

\$2,000,000 was awarded to Central Basin under the United States Department of Energy Recovery Act - Energy Efficiency and Conservation Block Grant Program. Under this program, funding will be provided to purchase and install a series of wireless (ET) controllers in residential and commercial settings that utilize radio commands for periodic pressure and management adjustments. A second element of the grant addresses water and energy demand management in recycled pipelines.

6.5 CURRENT AND FUTURE EDUCATION PROGRAMS

6.5.1 CURRENT PROGRAMS

Water Squad Investigations (Grades 4 – 12)

Launched in September 2006, Water Squad Investigations is a collaborative environmental education program that joins Central Basin, the Los Angeles County Sanitation Districts and LA County's Whittier Narrows Center to provide students with a fun-filled day of water awareness. By the end of June 2010, over 5,000 primary through secondary school students will have participated in the program. Table 6-1 shows the number of students who have participated in Central basin education programs since 2005.

Each Friday morning throughout the school year, participating students are driven from their school to the San Jose Creek Water Recycling Plant (SJCWRP), and later, to the Whittier Narrows Nature Center in a charter bus provided by Central Basin. At these sites, students are introduced to the concepts of water recycling and conservation through multimedia presentations, fun activity book exercises and guided tours of the facilities.

By the day's end, students gain a solid understanding of how water recycling can help conserve valuable drinking water and about the simple but effective ways they can conserve at home.

From September 2005 through June 2010, 5,835 students have participated in Water Squad Investigations.

Water Wanderings (Grades 4 – 5)

Water Wanderings is a collaborative classroom visitation program between Central Basin and the S.E.A. Lab in Redondo Beach, a program of the Los Angeles Conservation Corps. This collaborative hands-on classroom program takes fourth and fifth graders on a 2 ½-hour journey through California's water.

Each class that participates will have the opportunity to visit three action-packed stations where they will experience a multimedia game called California Water Jeopardy, a food chain/food web activity and touch live marine animals and plants on board the "traveling tidepool," a van outfitted with touch tanks.

Water Wanderings is correlated to many of the fourth through fifth grade State standards for social science and science. By participating in this free program, students learn to appreciate California's water as a scarce, valuable resource.

From September 2005 through June 2010, 26,670 students have participated in Water Wanderings.

Think Watershed (Grades 4 – 6)

Think Watershed educates students about the San Gabriel River Watershed's impact on our coastal waters and inspires them to become stewards of the environment. Students participate in hands-on activities to see how human behavior affects the quality of air, water, and habitat, as well as plant, animal, and human life.

Components of Think Watershed include:

Floating Lab Boat Trip – On a 3-hour cruise through the Long Beach Harbor, with a morning or an afternoon departure, students will participate in: a plankton lab, ocean bottom sediment study, water visibility testing, water chemistry interactions, and wildlife observation.

Curriculum – Aligned to the California Content Standards, a Think Watershed Teacher's Guide is distributed to all participating classroom teachers. The guide includes: pre-trip activities, cruise plan and preparation guidelines, and post-trip activities such as website data reporting and service learning projects.

Bus Transportation – Free transportation from the students' school to the Long Beach Harbor is provided to schools that qualify.

From September 2008 through June 2010, over 5,000 students have participated in Think Watershed.

Think Earth! It's Magic (Grades K – 5)

What does a magician have to do with water conservation? On the surface, it wouldn't seem like much, but *Think Earth! It's Magic* is a collaborative program between Central Basin and the Think Earth Environmental Education Foundation that uses an award-winning curriculum and magic shows to teach elementary school students about their environment.

As the magician makes water disappear, he teaches the importance of water conservation. As he makes a rabbit disappear, he explains the effects of toxic waste on the environment. The magician's show follows the curriculum of the Think Earth Environmental Education Foundation and correlates to the California State Content Standards in the areas of Language Arts, Science, Social Science, and Mathematics. The Think Earth Environmental Education Foundation is a non-profit organization dedicated to developing and maintaining a sustainable environment through education.

Each year, elementary schools throughout Central Basin's service area enhance their Think Earth curriculum with this exciting magic show. It is an opportunity to reinforce the classroom lessons and remind students about the importance of implementing environmentally sound practices around their homes and schools.

From September 2005 through June 2010, 37,800 students have participated in Think Earth! It's Magic.

Think Water! It's Magic (After School Program for Grades K – 5)

Think Water! It's Magic is a **FREE** environmental education program for students in extended daycare/after school programs. This innovative program features an energetic *Think Water! It's Magic* assembly by eco-magician Paul Cash that students will remember for many years.

The *Think Water! It's Magic* shows are approximately 45-minutes in duration. While performing magic tricks and illusions, eco-magician Paul Cash engages students in a fun way and teach them about the limited water availability on Earth, the water cycle, water quality, and water recycling. Most importantly, Mr. Cash also teaches students about the amount of water used during everyday tasks and how they can conserve water by just making some simple behavioral changes.

This exciting environmental education assembly program is offered **FREE** to all Central Basin elementary schools (K-5) that have an extended daycare/after school program.

From September 2008 through June 2010, over 6,000 students have participated in Think Water! It's Magic.

"Water Is Life" Poster Contest (Grades 4 – 8)

As part of an annual recognition of Water Awareness Month, the "Water Is Life" Poster Contest is a collaborative arts program between Central Basin and the MWD. Celebrated every May, Water Awareness Month encourages wise water use, conservation, recycling, and water education. Students in grades 4 – 8, are encouraged to depict on posters various water uses and/or wise water use at home or school, in industry or business, in the environment, in agriculture, or in recreation. Central Basin then selects a grand-prize winner who is awarded a fully-loaded laptop computer and receives a special recognition at Central Basin's headquarters. The grand-prize winner's poster is then submitted to MWD to be included in calendars, and featured on water bottles, screen savers, mouse pads, etc.

From September 2005 through June 2010, over 80,000 students have had an opportunity to participate in the "Water Is Life" Poster Contest.

Waterlogged (Grades 9 – 12)

Waterlogged is a collaborative high school visitation program between Central Basin and the Roundhouse Marine Studies Lab and Aquarium, an oceanographic teaching station. Through specimen dissections, examples of current aquatic/marine science research, and practical hands-on activities, students will learn more about the scientific method, habitats and inhabitants of the Pacific Ocean, and the overall effect of unintended human impacts on the aquatic/marine environment.

Waterlogged offers five exciting classroom visitation topics, which are each aligned to the California State Science Content Standards.

This exciting aquatic/marine science education program is offered FREE to all Central Basin Waterlogged High Schools.

From September 2007 through June 2010, 15,925 students have participated in Waterlogged.

Sewer Science (Grades 9-12)

Sewer Science is an award-winning, hands-on laboratory program that teaches high school students in Central Basin's service area about wastewater treatment.

During a week-long lab course, students create fake wastewater and employ physical, biological and chemical treatment methods and procedures to test its quality. The lab is facilitated by biologists and chemists from the County Sanitation Districts of Los Angeles County, allowing students the opportunity to learn first-hand from experienced science professionals.

From September 2005 through June 2010, 8,875 students have participated in Sewer Science.

6.5. 2 FUTURE PROGRAMS

Conservation Connection: Water & Energy in Southern California (Grades 5 – 8)

We turn the tap and water flows out. We turn on a lamp and light fills the room. We depend on water and energy. We need the water and energy to live in Southern California and elsewhere in the world too. But where do we get the water and energy that we use? Will we always have enough to meet our needs?

Conservation Connection answers those questions, showing the connections between California, our water and energy supply, and us. But providing information is only part of Conservation Connection. The goal of the curriculum is to get students actively involved – in their homes and at school – in conserving water and energy. Within the program, students have the opportunity to survey their family's water and energy use and survey water and energy use at their school.

After gathering data, analyzing their findings and reviewing recommendations, students make, implement, and monitor plans to decrease water and energy use. By participating in this action-based curriculum, students will learn to look critically at important environmental issues and take responsibility for finding solutions.

Water for the City: Southern California's Urban Water Cycle (Grades 4 – 8)

Water for the City: Southern California's Urban Water Cycle is a partnership between Central Basin, Los Angeles County Sanitation District, Water Replenishment District, MWD, Los Angeles County Office of Education, and the Center for Global Environmental Education at Hamline University. This interactive, multi-media water education curriculum has lessons for upper elementary through middle school students, as well as a teacher's guide. Lessons and animation elements will cover the following topics: Watershed Awareness, Where Southern California gets its water from, Surface and Ground Water, Water Storage and Delivery, A Raindrop's Journey, Water Recycling, Water Conservation, Water Planning, Dams and Reservoirs, Point and Non-Point Pollution, and an interactive Urban Water Cycle game that will address water supply and management issues.

**Table 6-1
School Education Program
(Number of Participating Students)**

Grade Level	FY 05-06	FY 06-07	FY 07-08	FY 08-09	FY 09-10	Total
K - 3rd	3,360	3,100	6,460	8,828	6,140	27,888
4th - 6th	6,040	9,520	11,163	14,499	13,825	55,047
7th - 8th	500	0	105	105	0	710
9th - 12th	905	1,925	4,900	9,265	8,015	25,010
Total	10,805	14,545	22,628	32,697	27,980	108,655

6.6 CENTRAL BASIN'S WATER USE EFFICIENCY MASTER PLAN

In 2006, Central Basin adopted a five-year Conservation Master Plan (CMP) to expand long-term water saving efforts and introduce new regionally tailored programs.

The CMP will be ending in 2011 and an updated CMP, is in the process of being developed. A number of factors, including new state and federal legislation, funding limitations from partnering agencies, and new state standards have changed the dynamics of conservation throughout the last few years. The new Master Plan will reflect those changes and continue to serve as a supportive water conservation guide for Central Basin.

7

Water Rates & Charges

This section discusses Central Basin's Water Rates & Charges

7.1 OVERVIEW

The residential water bill in Southern California is most likely the least expensive of a typical household's major utility bills. In fact, tap water can be purchased for much less than a penny per gallon—remarkable considering investments by water utilities into regulatory compliance, water use efficiency, infrastructure and other reliability programs. This paradox applies to Central Basin's service area as well, although residential water bills vary from retail water agency to retail water agency depending primarily on the mix of source water purchased and/or produced.

Retail agencies that exclusively serve groundwater, tend to have water rates that are lower than those that serve all imported water or a mix of groundwater and imported water. Imported water purchased from Central Basin and provided by MWD carries not only the cost of acquiring importing, purifying (treating) and distributing the commodity throughout the region but also a long-term action plan for ensuring adequate supplies to meet growing demands through conservation, education and new locally produced supplies.

7.2 MWD RATE STRUCTURE

In 2002, the Metropolitan Water District (MWD) Board of Directors adopted a rate structure to support its strategic planning vision as a regional provider of services, encourage the development of local supplies such as recycled water and conservation, and ensure a reliable supply of imported water. To

achieve these objectives, MWD called for voluntary purchase orders from its member agencies, unbundled its water rates, established a two-tiered supply rate system and added a capacity charge. Together, these rate structure components provide a better opportunity for MWD and its member agencies to manage their water supplies and proactively plan for future demands.

7.2.1 PURCHASE ORDERS

The Purchase Order is an agreement between MWD and a member agency, whereby the member agency agrees to purchase a minimum amount (60 percent of their highest year's delivery of non-interruptible water times 10) of non-interruptible water during a 10-year period - "Purchase Commitment." The economic incentive for a Purchase Commitment is that it entitles the member agency to purchase annually a set amount of non-interruptible water (Tier 1 Annual Maximum) at the lower Tier 1 rate, which is 90 percent of its highest year's delivery of non-interruptible water.

In the case of Central Basin, a 10-Year Purchase Agreement was signed in 2002 (with an effective date of January 1, 2003) which has a base allocation of 80,400 AF. The purchase order is included in Appendix H. As shown below in Table 7-1, Central Basin's Tier 1 Annual Maximum is 90percent of the base allocation, which is 72,360 AF. There is a purchase commitment of 482,400 AF by the end of 2012. Through December 2010, Central Basin purchased 487,220 AF, which satisfies its purchase commitment to MWD. A new purchase order will be developed over the next 18 months and will be effective January 2013.

Table 7-1
Central Basin Purchase Order Terms

Initial Base Allocation	Tier 1 Annual Maximum (90percent of Base)	Purchase Commitment (60percent of Base x 10)
80,400 AF	72,360 AF	482,400 AF

7.2.2 UNBUNDLED RATES AND TIER 1 & 2

In order to clearly justify the different components of the costs of water on a per acre foot basis, MWD unbundled its full service water rate. Among the components MWD established are:

Supply Rate Tier 1 – Reflects the average supply cost of water from the Colorado River and State Water Project.

Supply Rate Tier 2 – Reflects the MWD costs associated with developing new supplies, which are assessed when an agency exceeds its Tier 1 limit of firm deliveries.

System Access Rate – Recovers a portion of the costs associated with the conveyance and distribution system, including capital and operating and maintenance costs.

Water Stewardship Rate – Recovers MWD's cost of providing incentives to member agencies for conservation, water recycling, groundwater recovery and other water management programs approved by the MWD Board.

System Power Rate – Recovers MWD's electricity-related costs, such as the pumping of water through the conveyance and distribution system.

Treatment Surcharge – Recovers the treatment cost and is assessed only for treated water deliveries, whether firm or non-firm.

Table 7-2
Metropolitan Water District Unbundled
Water Rate Components Adopted for 2011

Category of Water	\$/AF
Supply Rate Tier 1	\$155
Supply Rate Tier 2	\$280
System Access Rate	\$204
Water Stewardship Rate	\$41
System Power Rate	\$127
Treatment Surcharge	\$217
Total Tier 1 Treated Rate	\$744
Total Tier 2 Treated Rate	\$869

The unbundled MWD water rates for calendar year (CY) 2011 are displayed in Table 7-2. Central Basin's complete rate schedule is included in Appendix I.

7.2.3 REPLENISHMENT SERVICE

Although a majority of the MWD water sold is full service at the Tier 1 rate, there is imported water sold at a discounted rate, better known as Replenishment Service Water. This type of water is used for groundwater storage and/or replenishment. There are two main types of replenishment water – treated and untreated. Because the replenishment water can be interrupted at anytime, MWD has provided a discount to the rates. However, the rates are not tied to the unbundled rate structure illustrated above. The rates are established by MWD to provide the best incentive to replenish the groundwater basins. Replenishment Service rates for 2011 are shown in Table 7-3.

Table 7-3
Metropolitan Water District
Replenishment Service Rate Adopted for 2011

Category of Water	\$/AF
Replenishment Water Rate Untreated	\$409
Treated Replenishment Water Rate	\$601

7.2.4 MWD CAPACITY CHARGE

MWD's rate structure also established a charge labeled "Capacity Charge." The charge was developed to recover the costs of providing distribution capacity use during peak summer demands. The aim of the new charge is to encourage member agencies to reduce peak day demands during the summer months (May 1 through September 30) and shift usages to the winter months (October 1 through April 30), which will result in a more efficient utilization of MWD's existing infrastructure and defers capacity expansion costs. Currently, MWD's Capacity Charge for 2011 is set at \$7,200/cubic feet per second (cfs).

The Capacity Charge is assessed by multiplying Central Basin's maximum usage by the rate. The maximum usage is determined by a member agency's highest daily average usage (per cfs) for the past three summer periods, as shown in Table 7-4, below, for Central Basin's maximum usage for CY 2011 – 125.9 cfs.

**Table 7-4
Metropolitan Water District Capacity Charge for 2011**

	Peak Flow 2007	Peak Flow 2008	Peak Flow 2009	3-Year Max
Central Basin	125.9 cfs	102.7 cfs	94.7 cfs	125.9 cfs

Note: These peak flows are based upon Central Basin's coincident peak of all its MWD connections.

7.2.5 READINESS-TO-SERVE CHARGE

The Readiness-to-Serve Charge (RTS) recovers a portion of MWD's debt service costs associated with regional infrastructure improvements. The RTS charge is a fixed charge assessed to each member agency regardless of the amount of imported water delivered in the current year. Rather, it is determined by the member agencies' firm imported deliveries for the past 10 years. All member agencies of MWD have the right chose how that designated amount is collected. Central Basin elected to have MWD collect the majority of the RTS obligation through a "Standby Charge" assessed on all parcels within its service area. The remainder is collected as a surcharge on Central Basin's commodity rates. The surcharge is discussed in section 7.3.3.

7.2.6 MWD STANDBY CHARGE

In 1992, the State Legislature authorized MWD to levy a standby charge that recognized that there are economic benefits to lands that have access to a water supply, whether or not such lands are using it. A fraction of the value of the benefit accruing to all landowners in MWD's service territory can therefore be recovered through the imposition of a standby charge. MWD assessed this charge only within the service area of the member agencies that requested such a parcel charge to help fund a member agency's RTS obligation as discussed in section 7.2.5. Within Central Basin, the MWD Standby Charge is currently \$10.44 per parcel.

7.3 CENTRAL BASIN'S IMPORTED WATER RATES

As MWD adopted a new rate structure so did Central Basin. In 2003, Central Basin passed through MWD's Purchase Order by offering customer agencies voluntary purchase agreements and assessing MWD's new Capacity Charge. Central Basin also revised the administrative surcharge to be applied uniformly to all classes of imported water sold. It has been, and continues to be the policy of Central Basin to pass through imported water rate increases from MWD to all cities and agencies in the Central Basin service area. Described below are elements of the rate structure that Central Basin applies to the delivery of imported water.

7.3.1 PURCHASE AGREEMENTS

In order to meet the Purchase Order Commitment with MWD, Central Basin established its own purchase contract policy with its customer agencies. Central Basin's Imported Water Purchase Agreements mimic the MWD version in terms of an Annual Tier 1 Maximum and Total Purchase Commitment but offer more flexibility to the customer. Central Basin requires only a five-year commitment, as opposed to a 10-year term. Furthermore, retail agencies have the option to adjust their Tier 1 and Purchase Commitment amounts annually if certain conditions are favorable and can also reduce their commitment amounts by offsetting imported water demand with recycled water purchased from Central Basin. For purchases above the Tier 1 limit, or in the absence of a Purchase Agreement, the customer agency pays the Tier 2 rate (as of January 1, 2011, \$125/AF above the Tier 1 rate).

Out of the 26 cities, water agencies and private water companies that have an imported water connection, five do not currently have a purchase agreement with Central Basin.

7.3.2 ADMINISTRATIVE SURCHARGE

One of the main revenue sources for Central Basin is the Administrative Surcharge applied to all imported water sold. In 2003, Central Basin revised the Administrative Surcharge to be uniformly applied to all imported water regardless of the type delivered. Revenue from the surcharge recovers Central Basin's administrative costs including planning, outreach and education, and conservation efforts. As of July 1, 2010, Central Basin's Administrative Surcharge is \$86/AF.

7.3.3 READINESS-TO-SERVICE SURCHARGE

As described above, MWD levies Central Basin with a RTS charge to recover a portion of its debt service costs, which is covered mostly by the MWD Standby Charge. However, the remaining balance is collected on the commodity rate. This RTS surcharge is added to Central Basin's commodity rates for only non-interruptible water. As of July 1, 2010, Central Basin's RTS surcharge is \$18/AF.

7.3.4 WATER SERVICE CHARGE

Water utility revenue structures benefit from a mix of fixed and variable sources. Central Basin's Water Service Charge recovers a portion of the agency's fixed administrative costs but is a relatively small portion of its overall revenue from water rates. As of July 1, 2010, the Water Service Charge is \$69/cfs of a customer agency's meter capacity for imported water meters.

7.3.5 CENTRAL BASIN'S CAPACITY CHARGE

This charge, as described in Section 7.2.4, is intended to encourage customers to reduce peak day demands during the summer months, which will result in more efficient utilization of MWD's existing infrastructure. Central Basin has passed through this MWD charge to its customer agencies by applying MWD's methodology. Each customer's Capacity Charge is determined from their highest daily average usage (per cfs) for the past three completed summer periods of May 1 through September 30. However, because MWD assesses Central Basin on the coincident daily peak of all the connections and aggregate of all its customers' daily peak as the non-coincident peak, Central Basin is able to keep the Capacity Charge rate lower than the MWD rate to its

customers. Central Basin charges \$5,700/cfs instead of \$7,200/cfs from MWD.

7.4 RECYCLED WATER RATES

Central Basin's recycled water program is comprised of two distribution systems: the E. Thornton Ibbetson Century Water Recycling Project and the Esteban Torres Rio Hondo Water Recycling Project with more than 50 miles of pipeline and three pump stations. Since 1992, Central Basin has encouraged the maximum use of recycled water to industries, cities and landscape irrigation sites through the economic incentive of its rates and charges. Central Basin's recycled water rate schedule is shown in Appendix I.

7.4.1 RECYCLED WATER RATES

Central Basin commodity rates cover the operation and maintenance and labor and power costs associated with the delivery of recycled water. The rates are set up in a two-tiered, declining block rate structure so they may further encourage the use of recycled water. Furthermore, the rates are wholesaled at a significant reduction to imported rates to promote the usage of recycled water.

The "outside of the Central Basin service area" rate is assessed to customers outside of Central Basin's service boundaries which pay an additional \$20/AF in each tier. This additional charge is applied to make up for the recycled water Standby Charge they are not levied on their parcels.

7.4.2 RECYCLED WATER STANDBY CHARGE

In addition to the MWD Standby Charge, there is a recycled water standby charge that is levied by Central Basin to each parcel within its service area. A \$10 per parcel charge is administered by Central Basin to provide a source of non-potable water completely independent of drought-sensitive supplies. The revenue collected from this charge is used to pay the debt service obligations on Central Basin's water recycling facilities. Each year the Board holds a public hearing where they adopt Central Basin's Engineer's Report and Resolution to assess this charge. The stand-by charge generates about \$3.1 million annually which is applied exclusively to retire Central Basin's debt obligation for construction of the recycled water system.

7.5 FUTURE WATER RATE PROJECTIONS

As the demand for water increases in Southern California so does the cost to administer, treat and distribute imported and recycled water. However, Central Basin has worked diligently to ensure that stable and predictable rates are managed for the future. Below are discussions of imported and recycled water rate trends during the next 10 years.

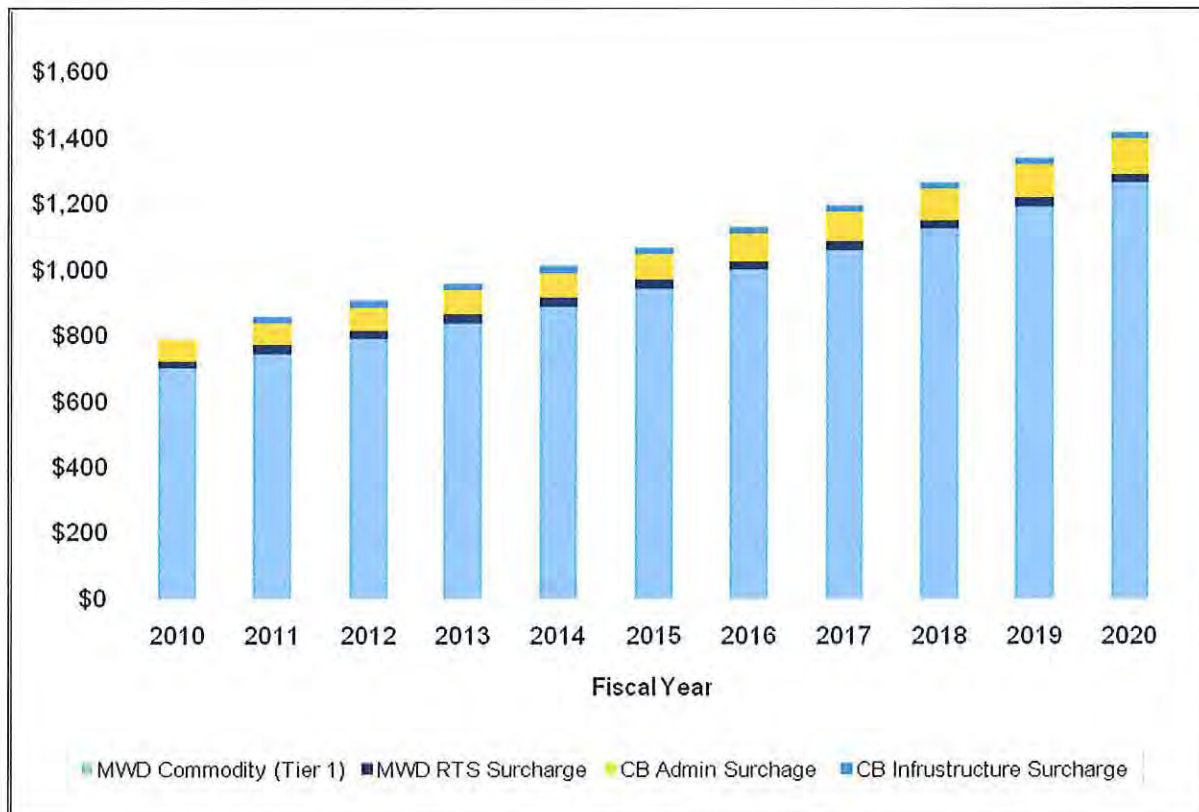
7.5.1 IMPORTED WATER RATE PROJECTIONS

In 2004, the MWD Board adopted its first "Long Range Finance Plan." This plan was developed to forecast future costs and revenues necessary to support its operations and capital investments and provide some level of rate certainty to the member agencies and sub-agencies throughout Southern California. Unfortunately, events of the last several years (drought, federal water restrictions from the Delta, national economic distress, etc.) have caused

imported water rates to increase much faster than predicted. MWD is now pursuing an update of the Long Range Finance Plan that is expected to provide some measure of predictability in an increasingly unpredictable world. Over the last ten years, the MWD Tier I treated rate has increased an average of 6 percent annually. For the next 10 years, we can assume an annual increase of 6 percent through the year 2020.

Central Basin's Administrative Surcharge is projected to increase at an annual average rate of 4 percent through 2015, and then 6 percent annually through 2020. This increase is an estimate that will be reviewed and modified annually based on the budget's revenue requirements. In FY 2010-11, Central Basin introduced a new Infrastructure Surcharge of \$20 per AF for all water sold, including recycled water. The purpose of this fee is to help cover the costs of expanded infrastructure to support regional reliability. Figure 7-1 displays Central Basin's imported water rate projections for the next 10 years.

Figure 7-1
Central Basin Imported Water Rates
10 Year Projections



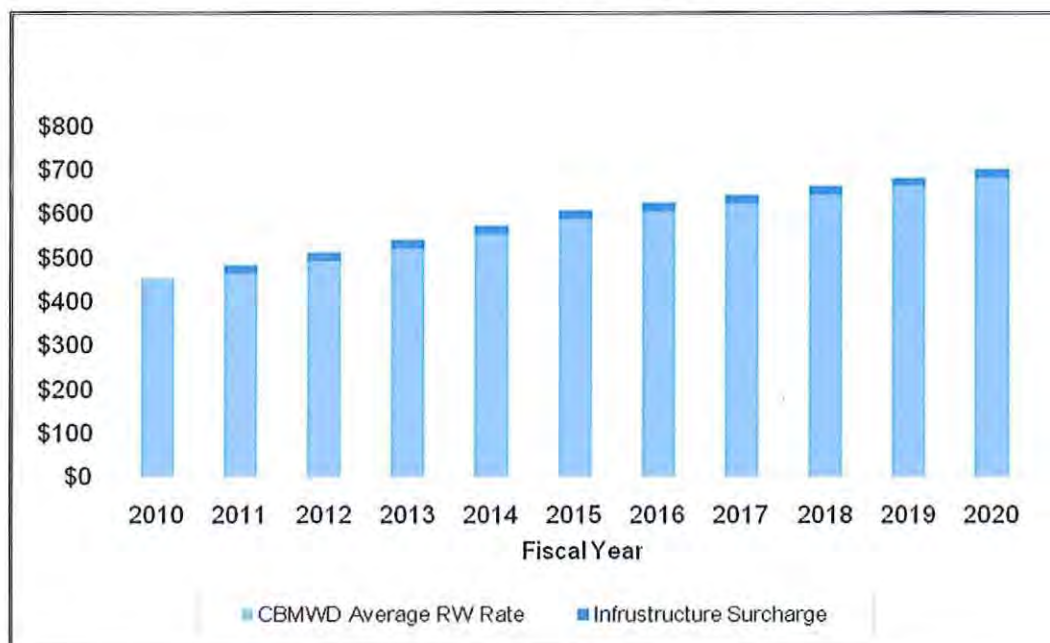
Source: Central Basin Estimates

7.5.2 RECYCLED WATER RATE PROJECTIONS

Similar to imported water, recycled water rates are broken up into a two-tier system reflecting a declining block rate to encourage its use. The first Tier is all agency recycled water sales up to 50 AF per month. After 50 AF, the rate drops by about 9 percent. Overall, recycled water rates are expected to increase because of higher treatment, maintenance and power costs. However, Central Basin believes in setting the rate of recycled water at a competitive level to help offset imported water. In order to achieve this economic incentive, recycled water rates have been

projected by Central Basin to increase at a slightly lower level than imported water. Recycled water rate increases are projected to be 6 percent annually through 2015 leveling off to 3 percent through 2020. As mentioned above, Central Basin introduced a new infrastructure surcharge in FY 2010-11 for all water sold. The charge will help offset the costs for expanded infrastructure to support regional reliability. As shown in Figure 7-2, Central Basin's average recycled water rate will be at a competitive level versus imported water rates during the next 10 years. The average is the difference between the first tier and second tier.

Figure 7-2
Central Basin Average Recycled Water Rates / AF
10 Year Projection



8

Water Recycling

This section discusses Water Recycling Efforts within Central Basin's service area

8.1 OVERVIEW

Recycled water is a cornerstone of Central Basin's efforts to augment local supplies and reduce dependence on imported water. Since planning and constructing its recycled water systems in the early 1990s, Central Basin has become an industry leader in water re-use. Recycled water is used for non-potable applications such as landscape irrigation, commercial and industrial processes such as cooling, and indirect potable use through groundwater replenishment.

In FY 2006-07, recycled water demand within Central Basin's service area peaked at 5,311 AF. This amount represented about 2 percent of the Central Basin service area total water demand of 280,500 AF. However, recycled water demand is projected to reach 16,000 AF by 2025, which should represent about percent of expected total water demand, which effectively triples recycled water usage in the Central Basin service area. Table 8-1 shows the projected use of recycled water over the next 25 years.

This section provides an overview of the District's water recycling system and water treatment and distribution. In addition, this section includes a discussion of the District's past, current and projected sales as well as the District's system expansion projects and Master Plan. The section concludes with a brief description of the Cerritos and Lakewood recycled water programs within Central Basin service area and WRD's use of recycled water as a groundwater replenishment supply within the region.

8.2 RECYCLED WATER SOURCES AND TREATMENT

8.2.1 CENTRAL BASIN'S SOURCE WATER

The source of Central Basin's recycled water is the County Sanitation Districts of Los Angeles County (CSDLAC). CSDLAC operates six water recycling

plants in the Los Angeles Basin. These combined systems produce approximately 457 million gallons per day (MGD) of effluent of which approximately one-third is available for municipal and industrial use. Central Basin purchases a portion of this recycled water from two reclamation plants, Los Coyotes and San Jose Creek. Both of these plants provide approximately 100 MGD of tertiary-treated (Title-22) water for distribution. Below is a detailed description of the two recycling plants.

San Jose Creek Water Recycling Plant

The San Jose Creek WRP is located in the City of Whittier and has a treatment capacity of about 100 MGD of wastewater. Approximately 71 MGD of recycled water is produced for use at locations throughout the region. These locations include groundwater recharge at the San Gabriel River and Rio Hondo Spreading Grounds as well as irrigation of parks, schools and greenbelts and commercial-industrial uses. The San Jose Creek WRP was built in the early 1970s as part of the region's Joint Outfall System and serves a largely residential population of approximately one million people. This Joint Outfall System uses six water reclamation plants and the Joint Water Pollution Control Plant in Carson to serve a major portion of metropolitan Los Angeles County.

The goal of the CSDLAC is to recycle as much of the reclaimed water from its water reclamation plants as possible. Approximately 31 MGD of the recycled water from San Jose Creek WRP is sent to percolation basins for groundwater recharge. In 1992, the San Jose Creek WRP was connected to the E. Thornton Ibbetson Century and Esteban Torres Rio Hondo Water Recycling projects which supply the water recycling needs of more than a dozen cities combined from the Central Basin water recycling distribution system. The high quality San Jose Creek WRP final effluent meets the National Pollution Discharge Elimination System (NPDES) requirements for water quality.

Los Coyotes Water Recycling Plant

The Los Coyotes WRP is located in Cerritos and has a treatment capacity of 37 MGD of wastewater. About 27 MGD of recycled water is produced and used at sites throughout the region. Sites include irrigation of schools, golf courses, parks, nurseries and greenbelts and industrial use at local companies for carpet dying and concrete mixing. The Los Coyotes WRP serves a population of approximately 370,000 people.

More than 200 sites in the Central Basin service area are now utilizing recycled water. The irrigation of parks, golf courses, schools, nurseries, freeway and street medians, and slopes and other greenbelt areas. In addition, various industries, such as the Shaw-Tuftex Carpet Mill (right) will use recycled water for carpet and textile dyeing, metal finishing, concrete mixing and cooling tower supply. Other industrial uses include concrete mixing (Robertson's Ready-Mix in Paramount and Santa Fe Springs), sand mold manufacturing process (Pacific Alloy Castings in South Gate), cooling plant operations at co-gen facilities (Metropolitan State Hospital in Norwalk) and power plant cooling (Malburg Power Plant in Vernon).

8.2.2 Recycled Water Quality

CSDLAC operates 10 laboratories including the San Jose Creek Water Quality Lab and Treatment Plant Laboratories. The laboratories have greatly increased the capability to control plant water quality and quality assurances and offer laboratory services to monitor the quality of effluent before it reaches recycled water users. More than 300,000 water quality tests on over 20,000 samples are performed annually at their facilities.

Although recycled water is not used as a drinking water supply, it still has to meet water quality

standards. The standards come from the California Code of Regulations under Title 22 and Title 17. Title 22 establishes the requirements for recycled water treatment, quality and allowable uses. Title 17 establishes the requirements for backflow protection of the potable water supply.

One of the major concerns for the use of recycled water is the level of TDS (Total Dissolved Solids) in the product water coming out of the treatment plant, also referred to as effluent. The higher the TDS levels, the more damaging the recycled water is for landscape irrigation, so it is important to keep the levels as low as possible. The limit for TDS at San Jose Creek and Los Coyotes is 800 and 1,000 mg/l, respectively. Typically, San Jose Creek TDS effluent levels are just over 500 mg/l while Los Coyotes TDS effluent levels are a bit higher at 800 mg/l.

One of the major components of TDS is chloride. The Regional Water Quality Control Board (RWQCB) established a limit for chloride levels through Resolution No. 97-02 in 2002. The resolution was adopted to provide a measure of drought relief for those treatment plants with higher chloride levels in their tributary waters. Requirements include monitoring data and assessment reports on chloride by Publicly Owned Treatment Waterworks (POTW's) on an annual basis. In 2008, chloride levels in the final effluent of San Jose Creek WRP were just over 100 mg/l (or 100 parts per million), while Los Coyotes were just under 200 mg/l, which is significantly below the limit of 250 mg/l.

All of the effluent water from the treatment plants in 2008 was adequately chlorinated to comply with the total coliform limit and all effluent recycled water discharged to the San Gabriel River from both treatment facilities was properly disinfected and dechlorinated.

Table 8-1
Projected Future Use of Recycled Water in Service Area
(in Acre-Feet)

Type of Use	2015	2020	2025	2030	2035
Irrigation	5,300	6,500	11,200	11,200	11,200
Commercial	150	250	300	300	300
Industrial	1,250	4,250	4,500	4,500	4,500
Total Projected Use of Recycled Water	6,700	11,000	16,000	16,000	16,000

Table 8-2
Projected Wastewater Collected and Treated¹
(In Acre-Feet)

	2015	2020	2025	2030	2035
Wastewater Collected & Treated ²	110,000	135,000	145,000	154,000	154,000
Recycled Water Delivered ³	21,300	24,600	25,000	26,000	27,000

¹ Data supplied by the County Sanitation Districts of Los Angeles County.

² From both the Los Coyotes WRP and the San Jose Creek WRP

³ Includes recycled water for Central Basin, Cerritos, and Lakewood, but does not include recycled water for groundwater recharge.

8.2.3 TREATMENT PROCESS

The wastewater that is recycled at the San Jose Creek and the Los Coyotes treatment plants undergoes tertiary treatment and denitrification. Tertiary recycled water begins with secondary treated water that undergoes coagulation, flocculation, filtration and disinfection. Tertiary treated water can be used for a wide variety of industrial and irrigation purposes where high-quality, non-potable water is needed. Section 5 (Water Quality) explains in more detail the wastewater treatment facilities that provide Central Basin with recycled water.

Recycled water undergoes a rigorous, multi-stage treatment process to clarify it to high quality standards. The level of treatment necessary is approved by the California Department of Public Health (CDPH). CDPH requires recycled water to meet California Code of Regulations Title 22 standards (Title 22). Title 22 standards address specific treatment requirements for recycled water and lists approved uses. Approximately 2,000 tests are performed monthly to ensure water quality meets or exceeds all State requirements.

Table 8-2 illustrates the past, current and projected amount of wastewater collected and treated as well as the amount of recycled water delivered by these two plants to Central Basin's distribution system. Table 8-3 shows the projected disposal of Title 22 water not used in recycled water programs.

The amount of wastewater collected and treated by these two reclamation plants is expected to remain relatively consistent during the next 25 years, despite population increases. According to CSDLAC analysis,

population increases are not projected to be significant enough to make it economically feasible to expand these CSDLAC facilities. Indeed, since 1999, CSDLAC effluent has been trending down annually due to conservation efforts and because of negative economic conditions, despite population increases. Based on CSDLAC's "FY 2008-09 Annual Report on Recycled Water", the San Jose Creek plant is treating wastewater at about 29 percent below the plant capacity. The Los Coyotes plant is treating wastewater at about 27 percent below its capacity. At this time, effluent production is at 1980 levels.

8.3 CENTRAL BASIN'S RECYCLED WATER SYSTEM

8.3.1 EXISTING SYSTEM

Central Basin's recycling system is comprised of two separate projects: E. Thornton Ibbetson Century Water Recycling Project (Ibbetson Century Project) and the Esteban E. Torres Rio Hondo Water Recycling Project (Torres Project). Both projects deliver recycled water for landscape irrigation and industrial uses throughout the Central Basin service area.

The whole recycled water system is comprised of about 50 miles of pipeline with diameters ranging from 2" service laterals all the way up to 30" trunk pipelines, two pump stations, and three booster pump stations.

Table 8-3
Projected Disposal of Wastewater (Non-Recycled) AF Year

Method of Disposal	2015	2020	2025	2030	2035
San Gabriel River	77,850	79,600	78,350	82,100	82,100
Total	72,850	79,850	78,350	82,100	82,100

The Ibbetson Century Project began delivering recycled water in 1992. The project currently delivers tertiary-treated recycled water from the CSDLAC's Los Coyotes Water Recycling Plant (WRP) and serves the cities of Bellflower, Bell Gardens, Compton, Cudahy, Downey, Lakewood, Lynwood, Norwalk, Paramount, Santa Fe Springs and South Gate.

In 1994, the Ibbetson Century Project was extended into the northern portion of Central Basin's service area. The extension, known as the Torres Project, delivers tertiary-treated recycled water from CSDLAC's San Jose Creek WRP and serves the cities of Bell, Bell Gardens, Commerce, Huntington Park, Montebello, Pico Rivera, Santa Fe Springs and Whittier.

In fiscal year 2009-2010, Central Basin's recycled water system delivered 4,316 AFY to more than 200 sites. It is anticipated, during the next 10 years that Central Basin will triple its sales with new connections across the northern portion of the service area.

Every year Central Basin connects new customers to recycled water and further reduces demands on potable water.

8.3.2 RECYCLED WATER USE BY TYPE

The types of sites that Central Basin currently serves, as shown in Table 8-4, vary from parks and landscape medians to textile industries and cooling towers.

Table 8-4
Types of Recycled Water Customers

• Landscape Irrigation	• Textile
• Golf Courses	• Median
• Co-Generation (Cooling Tower)	• Plant Nurseries
• Cemeteries	• Parks
• Concrete Mixing	• School Irrigation
• Cal-Trans (Irrigation)	• Others

As illustrated in Figure 8-1, the predominate use of recycled water deliveries is landscape irrigation, which account for 74percent of the total use. Of that amount, irrigation at parks and schools make up the majority when we look at the type of sites being served. The remainder of recycled water used in the Central Basin supports commercial uses, which include textile manufacturing and concrete mixing. Recycled water in industry is used predominantly in cooling towers for industrial cooling.

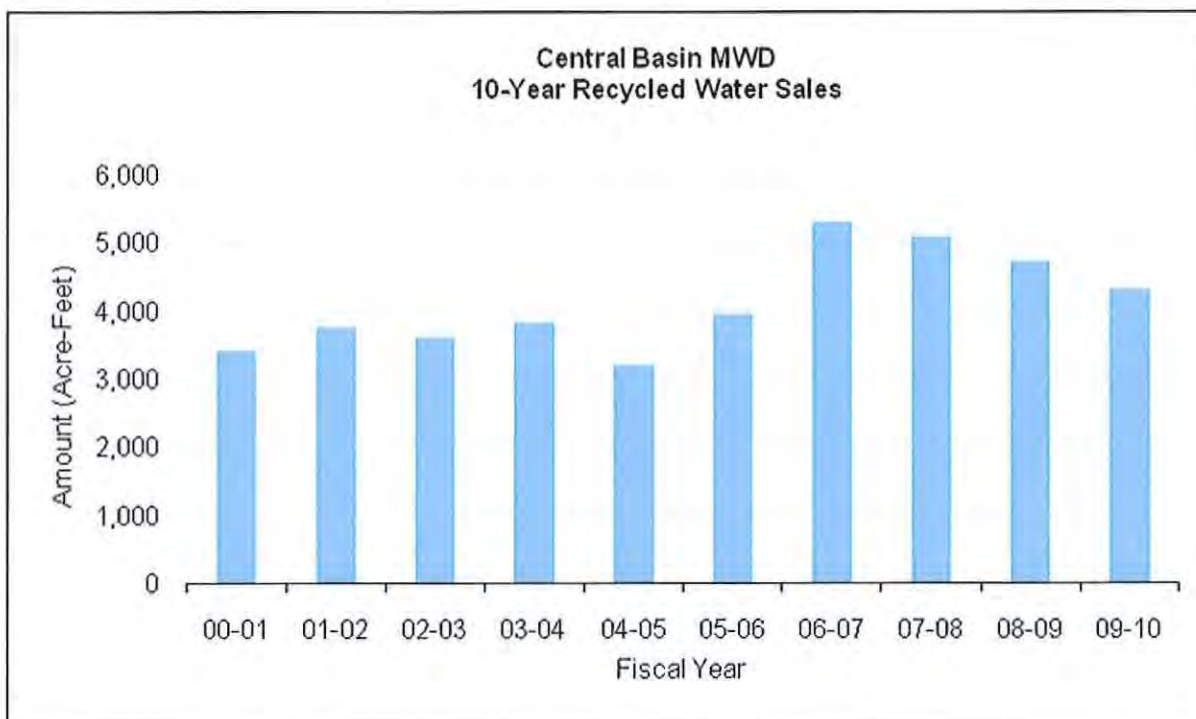
Table 8-5
Central Basin Recycled Water Use
for FY 2009-10 by Type of Site

To Be Developed

8.3.3 HISTORIC AND CURRENT SALES

For the past 10 years, Central Basin has seen its recycled water sales gradually increase each year to peak in FY 2006-07 at just over 5,300 AF. Since landscape irrigation constitutes about three-fourths of Central Basin's current recycled water use, water sales are highly impacted by rainfall in the region. For example, 2007 had one of the warmest spring, summer, and fall seasons in many years. That year proceeded two more years of similar drought conditions. In 2008 and 2009, economic conditions helped bring down recycled water usage even further. This is apparent in Figure 8-2, which shows Central Basin's recycled water sales for the last 10 years.

**Figure 8-1
Historic Recycled Water Sales
FY 2001 - 2010**



The amount of recycled water supplied by Central Basin during the last 10 years has totaled more than 41,100 AF, replacing enough potable water to supply the needs of approximately 82,000 families for more than a year. Central Basin anticipates recycled water sales to increase in the future as more customers switch from potable water to recycled water due to the reliability of the supply and the economic incentives associated with converting from potable water to recycled water.

Table 8-5, on page 8-6, displays a more detailed breakdown of annual sales by showing each retail customer agency's yearly purchases from Central Basin for fiscal years 2001 to 2010.

Actual sales for FY 2009-10 were below the peak year of FY 2006-07 when Central Basin sold over 5,300 AF. An above average rainfall year for Southern California combined with a poor economy to reduce recycled water sales for past last two years. Still, Central Basin anticipates large increases in sales during the next 5 - 10 years due to completion of a significant recycled water project to expand the system along with the completion of several important connections to new customers.

8.3.4 SYSTEM EXPANSIONS AND PROJECTED SALES

In 2008, Central Basin developed a Recycled Water Program Master Plan (Master Plan) to help identify all of the potential customers that could benefit from recycled water. In addition, the Master Plan would provide the best system expansion routes to benefit the entire system from which the following system expansion projects were devised:

Southeast Water Reliability Project

In early 2010, Central Basin began construction of the Southeast Water Reliability Project (SWRP). When completed, SWRP will consist of about 11 miles of recycled water transmission pipeline extending from the City of Pico Rivera to the City of Vernon. SWRP will complete Central Basin recycled water transmission system by connecting the existing Rio Hondo and Century system pipelines across the northern portion of the service area. The "loop" will increase available flow and pressure in many areas of the entire distribution system that are currently not adequately served. Also SWRP itself will provide recycled water to new customers in the Cities of Pico Rivera, Montebello, Vernon, and Los Angeles, and the unincorporated county area of East Los Angeles,

Table 8-6
Historical Recycled Water Sales by Retail Customer Agency of Central Basin
FY 2001 to 2010
(In Acre-Feet)

Central Basin	FY 00-01	FY 01-02	FY 02-03	FY 03-04	FY 04-05	FY 05-06	FY 06-07	FY 07-08	FY 08-09	FY 09-10	Total
Bellflower Municipal	21	22	17	20	16	14	18	19	13	10	170
Bellflower-Somerset Mutual	131	159	118	125	108	103	119	123	122	104	1,199
City of Cudahy	9	8	7	7	6	6	7	7	7	6	68
City of Downey	642	733	664	686	617	609	861	742	753	742	7,048
City of Huntington Park	49	60	48	64	49	45	59	60	54	51	539
City of Lynwood	69	66	70	67	46	32	25	19	5	2	399
City of Norwalk	100	120	109	111	92	75	113	121	100	94	1,035
City of Paramount	429	453	431	443	360	372	451	395	339	354	4,027
City of Pico Rivera	-	-	35	39	28	36	37	28	28	17	251
City of Santa Fe Springs	858	893	815	774	630	959	794	838	647	562	7,771
City of South Gate	164	191	162	177	213	153	176	210	127	113	1,685
City of Vernon	-	-	-	-	-	578	855	759	831	752	3,775
City of Whittier	78	77	82	98	66	61	116	108	87	70	843
Golden State Water Company	358	418	506	610	523	477	549	565	566	495	5,069
Park Water Company	428	469	471	489	341	307	416	355	319	271	3,867
San Gabriel Valley Water Co	72	77	65	76	48	56	74	65	59	52	646
Upper San Gabriel Valley MWD	-	-	7	35	45	52	642	661	659	621	2,722
Total	3,408	3,747	3,606	3,822	3,189	3,936	5,311	5,073	4,716	4,317	41,126

Upper San Gabriel Valley Municipal Water District and the San Gabriel Valley Water Company.

SWRP is broken out into two phases - Phase I, which is under construction in 2010, consists of 6.2 miles of 30-inch mainline from Pico Rivera to Montebello. Phase II will probably be built at some in the near future, depending on customer demand. When the entire project is completed, SWRP is expected to increase recycled water deliveries to approximately 11,000 AFY within the first few years and ultimately to about 16,000 AFY. The SWRP project is shown in Figure 8-3 in relation to the existing recycled water system.

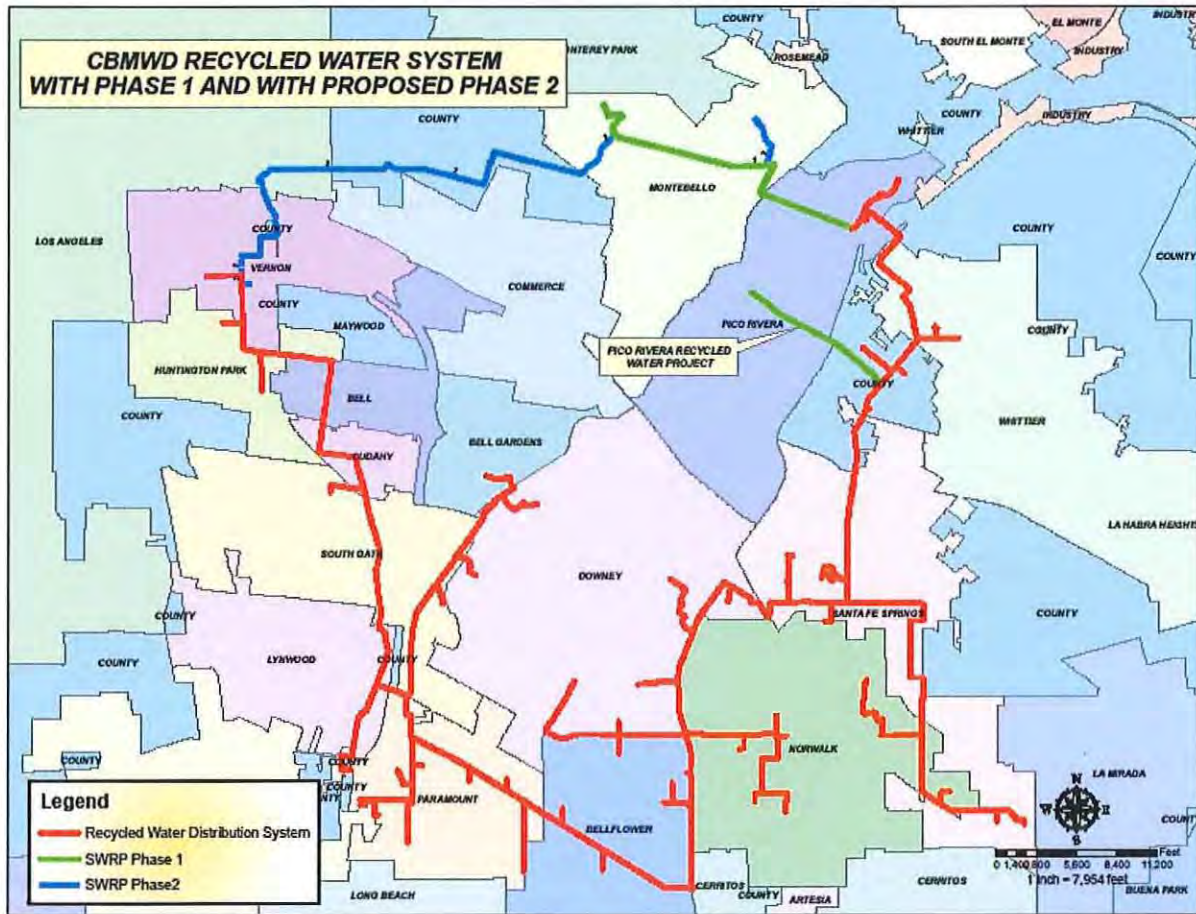
Pico Rivera Recycled Water Project

As part of SWRP, Central Basin is expanding recycled water service in the central area of the City of Pico Rivera. The Pico Rivera Recycled Water Project is being constructed on Mines Avenue in conjunction with the Los Angeles County Department

of Public Works (LACDPW) and the City of Pico Rivera. While LACDPW is constructing an unrelated 78" conduit pipeline project in Mines Avenue, the three agencies agreed to split the costs of a separate 8-inch recycled water pipeline on Mines Avenue that can meet the irrigation demands at several publically owned sites in the immediate area, as well as the irrigation demands of the San Gabriel River and the Rio Hondo Spreading Grounds. A connecting pipeline is being built by Central Basin to the existing recycled water facilities in the unincorporated county area of Whittier. The Pico Rivera Recycled Water Project is shown Figure 8-3 on the next page.

Because the 2008 Master Plan may not accurately reflect recent changes in the industrial base of the areas to be served by the SWRP project, a Master Plan update will be completed in 2012. The Master Plan update will allow Central Basin to refine the list of potential sites and staff to forecast more accurately future recycled water sales.

Figure 8-2
CBMWD Recycled Water Distribution System with SWRP



System Storage

Storage capability within Central Basin's recycled water distribution system has been anticipated since the inception of the system. The system's peak demand occurs between a relatively narrow time period of 10:00 PM through 6:00 AM, but conversely, that is when CSDLAC recycled water effluent is at its lowest availability. Combined with the further expansion and demands of the recycled water system will only exacerbate the problem. The best way to offset this discrepancy between flow and demand is to build storage. Central Basin has proposed to construct a 3 million gallon recycled water storage tank using one of two options. Option one is to build the storage tank in the hills of Montebello. Option two is to construct a tank at the site of the Rio Hondo Pump Station in Pico Rivera. Option one is the preferred option because by placing the tank at a higher elevation, the recycled water system can be served by gravity flow without additional pumps.

Potential New Connections

These potential new connections will be planned either concurrently or subsequently to the SWRP, since they are dependent on the hydraulic benefits of the larger project. Other potential capital projects planned for the next five years include:

- In partnership with Suburban Water Systems, a La Mirada Lateral to serve the La Mirada Civic Center as well as the High School, Golf Course, and Park. Potential use is 1,200 AF per Year (AFY).
- A Santa Fe Springs Lateral to serve the Air Products cooling towers. Estimated use is 225 AFY.
- A Norwalk Lateral to serve the Norwalk City Hall. Estimated use is 17 AFY.

Projected Recycled Water Sales

According to the Master Plan, Central Basin's recycled water system is projected to increase from its current sales of about 5,000 AF to 16,000 AF by 2030.

8.3.5 POTENTIAL RECYCLED WATER USE

The potential of recycled water use will increase among cities, water agencies and businesses/industries through the years. The increased cost of imported and groundwater will enhance the beneficial usages of recycled water. Central Basin will continue to pursue new cost-effective projects both within its service area and in partnership with willing neighboring agencies. Efforts are currently focused on maximizing the potential of the original regional system, for which Central Basin receives an incentive payment from MWD for every acre-foot delivered up to 10,500 AFY through 2019. Although current projections discussed above show Central Basin exceeding that amount by 2020, it is preparing for the long-term financial viability of the water recycling system.

Although there is great potential to increase recycled water use in Central Basin, there are challenges and limitations in connecting customers. Among them are proximity to recycled water pipelines, capacity and pressure to serve, and retrofit cost-feasibility. These factors play a significant role in meeting the potential growth of recycled water. The ability to connect new customers dictates when and how much recycled water will be sold in the future.

In 2008, the Master Plan identified and prioritized areas within Central Basin's service area where recycled water has the potential to expand. In this study, a database was established to locate and identify future customers. The approach considered pipeline routing, hydraulic analysis and economic interests to predict the growth of recycled water in Central Basin's service area.

Although the Master Plan is currently being updated and could influence Central Basin's near-term and long-term projections depending primarily on the potential changes to industrial water, the principle goal of maximizing the potential usage of recycled water throughout the service area will not change.

Partnerships with neighboring agencies have already resulted in projects that expand the Central Basin system and sales beyond the service area limits.

8.3.6 ENCOURAGING RECYCLED WATER USE

Central Basin's marketing efforts have been successful in changing the perception of recycled water from merely a conservation tool with minimal application to a business enhancement tool that lowers operating costs while increasing the reliability of the water supply. Central Basin markets recycled water as a resource that:

- Is less expensive than potable water;
- Is more reliable than imported water in a drought and
- Is consistent with statewide goals for water supply and ecosystem improvement on both the SWP and Colorado River systems.

The target customer is expanding from traditional irrigation users such as golf courses and parks to unconventional commercial and industrial users.

In addition to Central Basin wholesaling recycled water at a rate lower than potable water, Central Basin provides other financial incentives as well to encourage recycled water use. Some potential recycled water customers do not have the financial capability to pay for the onsite plumbing retrofits necessary to accept recycled water. Therefore, Central Basin will advance the funds necessary for retrofit expenses. The funds are reimbursed on monthly basis through direct billings from Central Basin. The on-site plumbing retrofit costs are amortized through a period of time, up to 10 years at Central Basin's cost of funds. Once the loan is repaid, the customer will enjoy the full benefit of potable water savings.

Optimizing Recycling Water Use

Central Basin's plan for optimizing the use of recycled water will be carried out through Central Basin's Recycled Water Master Plan update. The Master Plan is Central Basin's guiding document for identifying and prioritizing potential customers. The 2008 Master Plan is currently being updated to capture changes in the industrial and commercial base within the service area, particularly in the northern portion to be served by SWRP.

8.3.7 FUNDING

Capital costs for projects planned over the next five years have been budgeted to an annual average of approximately \$8,500,000¹. The costs will be covered by the following sources identified here and other sources as they become available:

- MWD Local Resources Program Incentive. To qualify, proposed recycled water projects by member agencies must cost more than projected MWD treated non-interruptible water rates and reduce potable water needs. Since founding MWD with other municipal water utilities in 1928, Central Basin has remained affiliated as a member agency and is therefore considered for the rebates for up to \$250/AF offered under the program.
- Grant Funding. Central Basin continuously applies for Federal and State grant funding for recycled water projects as they become available. In 2005, Central Basin was awarded a \$3.5 million grant for the Southeast Water Reliability Project through the Greater Los Angeles Integrated Regional Water Management Plan. In addition, in 2009, Central Basin was awarded a \$5.6 million dollar grant from the American Reinvestment and Recovery Act (ARRA).

8.4 RECYCLED WATER PROJECTS WITHIN CBMWD SERVICE AREA

8.4.1 CITY OF CERRITOS WATER RECYCLING PROGRAM

The City of Cerritos has had its own water recycling system since 1988 and recently celebrated the project's 20th anniversary. This 22-mile system has saved Cerritos about \$6 million in water costs with an initial investment of about \$9 million. Even though the Cerritos system is not interconnected with Central Basin's system, Cerritos is an important partner because Central Basin's system shares the Cerritos Pump Station for a portion of its recycled water supply from CSDLAC's Los Coyotes Water Recycling Plant. The Cerritos system serves about 2,000 acre-feet

each year (400 acre-feet of that supply goes to Lakewood) at approximately 80 sites within the two cities. In looking at Cerritos' overall water demand, recycled water makes up about 13 percent of their total water supply portfolio making it one of the most successful recycled water systems in the country.

8.4.2 CITY OF LAKEWOOD WATER RECYCLING PROGRAM

The City of Lakewood purchases about 400 AFY of recycled water from the City of Cerritos to help offset an equal demand of potable water.

8.4.3 WATER REPLENISHMENT DISTRICT- RECYCLED WATER OPERATIONS

For almost 50 years, the Water Replenishment District (WRD) has been purchasing recycled water from the CSDLAC to be melded with imported and storm water within the recharge grounds of the with CSDLAC and Los Angeles County Department of Public Works (LACDPW). The WRD has an agreement to recharge the basin with recycled water. LACDPW owns and operates the recharge facilities, while WRD purchases the recycled water from the CSDLAC. Under the conditions of a regulation permit from the Los Angeles Regional Water Quality Control Board, the WRD is limited to spreading 35 percent recycled water over a five year period based on the total inflow of all waters (storm water, imported water, and recycled water) entering the Montebello Forebay. For planning purposes, the amount is estimated to grow to 50,000 AF per year.

8.5 TOTAL RECYCLED WATER USE IN CENTRAL BASIN

Within Central Basin's service area there are three key water recycling programs that help offset potable water usage and provide groundwater replenishment. Among the three are the Central Basin Recycled Water System, the City of Cerritos Recycled Water Program, and WRD use of recycled water for replenishment. As illustrated in Table 8-7, together these programs delivered over 46,000 AF of recycled water in the region in 2008-09 which is about 22percent of all water used in the Central Basin area.

FOOTNOTES:

1 Approximation is an average based on fiscal year capital project projections during a five year period (FY: 2010-11 to 2014-15).

Table 8-7
Total Projected Recycled Water Use in Central Basin's Service Area
(in Acre-Feet)

	2010	2015	2020	2025	2030	2035
Central Basin						
Century/Rio Hondo Projects	4,700	6,700	11,000	16,000	16,000	16,000
Total	4,700	6,700	11,000	16,000	16,000	16,000
Other Programs within Central Basin						
City of Cerritos	1,500	1,500	1,500	1,500	1,500	1,500
City of Lakewood ¹	400	400	400	400	400	400
WRD (Replenishment) ²	40,000	50,000	50,000	50,000	50,000	50,000
Total	41,900	51,900	51,900	51,900	51,900	51,900
Central Basin's Service Area Total	46,600	58,600	62,900	67,900	67,900	67,900

[1] City of Lakewood receives its recycled water from the Cerritos Recycled Water Distribution System.

[2] Data from WRD's 2009 Engineering Survey and Report

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